ORDER NO. CPD0711216CE

Service Manual

Simplified

Notebook Computer

Model No. CF-30FTSAZAM

TOUGHBOOK

This is the Service Manual for the following areas.
M …for U.S.A. and Canada

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

WARNING

For U.K.

This apparatus must be earthed for your safety.

To ensure safe operation the three-pin plug must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.
Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.
The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe.
For your safety, if you have any doubt about the effective earthing of the power point, consult a qualified electrician.

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 3 amp fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 3 amps and that it is approved by ASTA or BSI to BS 1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.
If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.
If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

Warning: THIS APPLIANCE MUST BE EARTHED.

Important

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow:	Earth
Blue:	Neutral
Brown:	Live

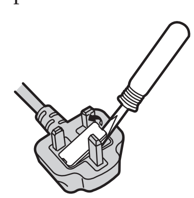
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ coloured GREEN or GREEN-and-YELLOW.

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured RED.

The mains plug on this equipment must be used to disconnect the mains power.
Please ensure that a socket outlet is available near the equipment and shall be easily accessible.

■ How to replace the fuse

Open the fuse compartment with a screwdriver and replace the fuse.



Warnings

- This equipment is not designed for connection to an IT power system.
  (An IT system is a system having no direct connections between live parts and Earth; the exposed-conducive-parts of the electrical installation are earthed.
  An IT system is not permitted where the computer is directly connected to public supply systems in the U.K.)
- Disconnect the mains plug from the supply socket when the computer is not in use.

This equipment is produced to BS800/1983.

SAFETY PRECAUTIONS

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacture's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.

Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak. vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

SAVE THESE INSTRUCTIONS

LITHIUM BATTERY

This computer contains a lithium battery to enable the date, time, and other data to be stored. The battery should only be exchanged by authorized service personel.
Warning! A risk of explosion from incorrect installation or misapplication may possibly occur.

LITHIUM BATTERY ⚠

• **CAUTION**
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Dispose of used batteries according to the manufacturer's instructions.

LITHIUMBATTERIES ⚠

Vorsicht!
Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben order einen vom Hersteller empfohlenen ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

PILE AU LITHIUM ⚠

ATTENTION: IL Y A DANGER D'EXPLOSION S' IL Y A REMPLACEMENT INCORRECT DE LA PILE. REMPLACER UNIQUEMENT AVEC UNE PILE DU MÈME TYPE OU D'UN TYPE RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU RÉBUT LES PILES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

Precautions (Battery Pack)

Do Not Use with Any Other Product
The battery pack is rechargeable and was intended for the specified product. If it is used with a product other than the one for which it was designed, electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Charge the Battery Using Methods Other Than Those Specified
If the battery is not charged using one of the specified methods, electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Throw the Battery Pack into a Fire or Expose It to Excessive Heat
Generation of heat, ignition or rupture may result.

Avoid Extreme Heat (Near the Fire, in Direct Sunlight, for Example)
Electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Insert Sharp Objects into the Battery Pack, Expose It to Bumps or Shocks, Disassemble, or Modify It
Electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Short the Positive (+) and Negative (-) Contacts
Generation of heat, ignition or rupture may result. Do not place the battery pack together with articles such as necklaces or hairpins when carrying or storing.

Do Not Use This Product with a Battery Pack Other Than the One Specified
Use only the specified battery pack with your product. Use of battery packs other than those manufactured and supplied by Panasonic may present a safety hazard (generation of heat, ignition or rupture).

A lithium ion battery that is recyclable powers the product you have purchased.
Please call 1-800-8-BATTERY for information on how to recycle this battery.

L'appareil que vous vous êtes procuré est alimenté par une batterie au lithium-ion.
Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

- Do not touch the terminals on the battery pack. The battery pack may no longer function properly if the contacts are dirty or damaged.
- Do not expose the battery pack to water, or allow it to become wet.
- If the battery pack will not be used for a long period of time (a month or more), charge or discharge (use) the battery pack until the remaining battery level becomes 30% to 40% and store it in a cool, dry place.
- This computer prevents overcharging of the battery by recharging only when the remaining power is less than approx. 95% (when Economy Mode (ECO) is enabled: 75%) of capacity.
- The battery pack is not charged when the computer is first purchased. Be sure to charge it before using it for the first time. When the AC adaptor is connected to the computer, charging begins automatically.
- Should the battery leak and the fluid get into your eyes, do not rub your eyes. Immediately flush your eyes with clear water and see a doctor for medical treatment as soon as possible.

NOTE

- The battery pack may become warm during recharging or normal use. This is completely normal.
- Recharging will not commence if internal temperature of the battery pack is outside of the allowable temperature range (0 °C to 55 °C {32 °F to 131 °F}). (➔ *Reference Manual* "Battery Power")
  Once the allowable range requirement is satisfied, charging begins automatically. Note that the recharging time varies based on the usage conditions. (Recharging takes longer than usual when the temperature is 10 °C {50 °F} or below.)
- If the temperature is low, the operating time is shortened. Only use the computer within the allowable temperature range.
- The battery pack is a consumable item. If the amount of time the computer can be run by using a particular battery pack becomes dramatically shorter and repeated recharging does not restore its performance, the battery pack should be replaced with a new one.
- When transporting a spare battery inside a package, briefcase, etc., it is recommended that it be placed in a plastic bag so that its contacts are protected.
- Always power off the computer when it is not in use. Leaving the computer on when the AC adaptor is not connected will exhaust the remaining battery capacity.

CONTENTS

1. Specifications

This page provides the specifications for the basic model CF-30FTSAZAM/CF-30F3SAZAM.
The model number is different according to the unit configuration.

- To check the model number:
  Check the bottom of the computer or the box the computer came in at the time of purchase.
- To check CPU speed, memory size and the hard disk drive (HDD) size:
  Run the Setup Utility (➔ *Reference Manual* "Setup Utility") and select [Information] menu.
  [CPU Speed]: CPU speed, [System Memory]: Memory size, [Hard Disk]: Hard disk drive size

■ Main Specifications

Model No.			CF-30FTSAZAM	CF-30F3SAZAM
CPU			Intel® Core™ 2 Duo Processor L7500 (1.6 GHz, 4 MB[1] L2 cache, 800 MHz FSB)	
Chipset			Intel® GM965	
Memory[2][4]			1 GB (4 GB Max.)	
Video Memory[1][3]			UMA (384 MB Max.)	
Hard Disk Drive[4]			80 GB	
Display Method			13.3 XGA type (TFT) with Touchscreen	13.3 XGA type (TFT)
	Internal LCD[5]		65,536/16,777,216 colors (800 × 600 dots/1024 × 768 dots)	
	External Display[6]		65,536/16,777,216 colors (800 × 600 dots/1024 × 768 dots/1280 × 768 dots/1280 × 1024 dots/ 1440 × 900 dots)	
Wireless LAN[7]			➔ Next page	
Bluetooth™[8]			➔ Next page	
LAN			IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T	
Modem			Data: 56 kbps (V.92) FAX: 14.4 kbps	
Sound			WAVE and MIDI playback, Intel® High Definition Audio subsystem support, Monaural speaker	
Security Chip			TPM (TCG V1.2 compliant)[9]	
Card Slot	PC Card		Type I or Type II x 1 (3.3 V: 400 mA, 5 V: 400 mA)	
	ExpressCard		ExpressCard/34[10] or ExpressCard/54 x 1	
	SD Memory Card[11]		x 1, Data transfer rate = 8 MB per second[12]	
	Smart Card[13]		ISO7816 x 1	
RAM Module Slot			200-pin, 1.8 V, SO-DIMM, DDR2 SDRAM, PC2-4200 Compliant	
Interface			USB port (4-pin, USB 2.0) x 3, Serial port (Dsub 9-pin male), Modem port (RJ-11), LAN port (RJ-45), External display port (Mini Dsub 15-pin female), Expansion Bus Connector (Dedicated 80-pin female), External Antenna Connector (Dedicated 50 Ω coaxial connector), IEEE 1394a Interface Connector (4-pin x 1), Microphone Jack (Miniature jack, 3.5 DIA, Stereo), Headphone Jack (Miniature jack, 3.5 DIA, Impedance 32 Ω, Output Power 4 mW × 2)	
Keyboard / Pointing Device			87 keys / Touch Pad / Touchscreen (Anti-Reflection, Stylus (included) touch capable)	87 keys / Touch Pad
Power Supply			AC adaptor or Battery pack	
AC Adaptor[14]			Input: 100 V to 240 V AC, 50 Hz/60 Hz, Output: 15.6 V DC, 5.0 A	
Battery Pack			Li-ion 10.65 V, 8.55 Ah	
	Operating Time[15]		Main Battery: Approx. 7 hours[16] Main Battery + Second Battery: Approx. 10.5 hours[16]	
	Charging Time[15]	Power on	Main Battery: Approx. 8.5 hours Main Battery + Second Battery: Approx. 12.5 hours	
		Power off	Main Battery: Approx. 5 hours Main Battery + Second Battery: Approx. 8 hours	
Clock Battery			Coin type lithium battery 3.0 V	
Power Consumption[17]			Approx. 50 W[18] / Approx. 70 W (Maximum when recharging in the ON state)	
Physical Dimensions (W × H × D)			302 mm × 67.5 - 69.5 mm × 292 mm {11.9" × 2.7 - 2.8" × 11.5"}	
Weight			Approx. 3.8 kg {Approx. 8.4 lb.}, excluding the dummy pack and dummy cards (approx. 50 g {approx. 1.8 oz.})	
Operation Environment			Temperature: 5 °C to 35 °C {41 °F to 95 °F} Humidity: 30% to 80% RH (No condensation)	
Storage Environment			Temperature: -20 °C to 60 °C {-4 °F to 140 °F} Humidity: 30% to 90% RH (No condensation)	

Main Specifications

Operating System	Microsoft® Windows® XP Professional Service Pack 2 with Advanced Security Technologies (NTFS File System)
Utility Programs	DMI Viewer, Microsoft® Windows® Media Player 10, Adobe Reader, PC Information Viewer, SD Utility, Icon Enlarger, Loupe Utility, Intel® Matrix Storage Manager, Intel® PROSet/Wireless Software[*7], Bluetooth™ Stack for Windows® by TOSHIBA[*8] , Wireless Switch Utility, Hotkey Settings, Battery Recalibration Utility, Panasonic Hand Writing, Infineon TPM Professional Package[*19], Recover Pro™ 6[*19] or Recover Pro™ VX[*19], Power Saving Utility, Wireless Connection Disable Utility
	Setup Utility, Hard Disk Data Erase Utility[*20], PC-Diagnostic Utility

Wireless LAN <Only for model with wireless LAN>

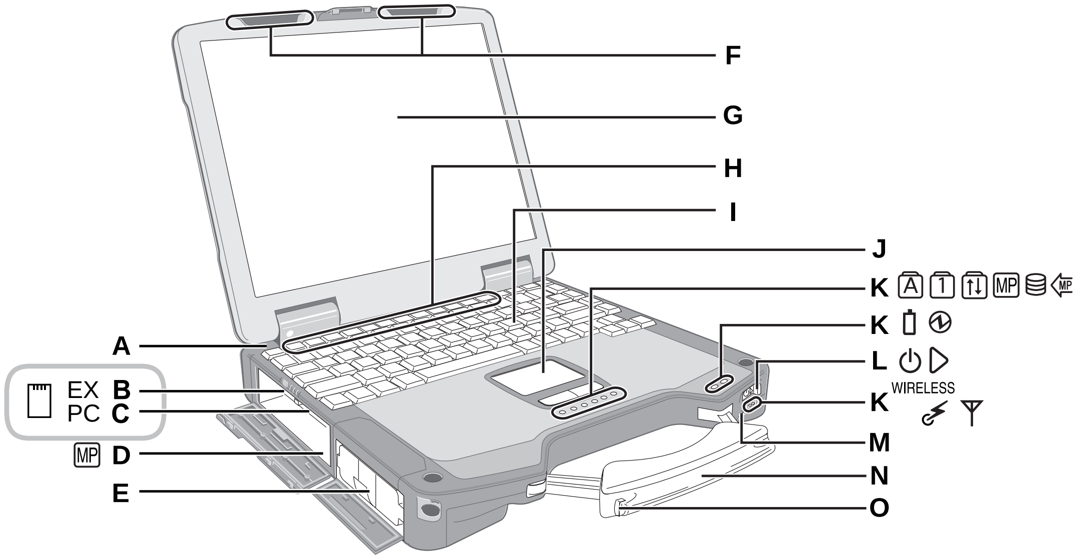
Intel Wireless WiFi Link 4965AG (802.11 a + b + g)[*21]	
Data Transfer Rates[*22]	IEEE802.11a: 54/48/36/24/18/12/9/6 Mbps (automatically switched) IEEE802.11b: 11/5.5/2/1 Mbps (automatically switched) IEEE802.11g: 54/48/36/24/18/12/9/6 Mbps (automatically switched)
Standards Supported	IEEE802.11a/IEEE802.11b/IEEE802.11g
Transmission method	OFDM system, DSSS system
Wireless Channels Used	IEEE802.11a: Channels 36/40/44/48/52/56/60/64/149/153/157/161/165 IEEE802.11b/IEEE802.11g: Channels 1 to 11
RF Frequency Band	IEEE802.11a: 5.18-5.32 GHz, 5.745-5.825 GHz IEEE802.11b/IEEE802.11g: 2.412-2.462 GHz

Bluetooth™ <Only for model with Bluetooth>

Bluetooth Version	2.0 + EDR
Transmission method	FHSS system
Wireless Channels Used	Channels 1 to 79
RF Frequency Band	2.402-2.48 GHz

*1 1MB = 1,048,576 bytes
*2 You can physically expand the memory upto 4 GB, but the total amount of usable memory available will be less depending on the actual system configuration.
*3 A segment of the main memory is allotted automatically depending on the computer's operating status. The size of the Video Memory cannot be set by the user.
*4 1GB = 1,000,000,000 bytes. Your operating system or some application software will report as fewer GB.
*5 A 16,777,216 color display is achieved by using the dithering function.
*6 Maximum resolution depends on the specifications of the external display.
*7 Only for model with wireless LAN
*8 Only for model with Bluetooth
*9 For information on TPM, click [start] - [Run] and input "c:\util\drivers\tpm\README.pdf", and refer to the Installation Manual of "Trusted Platform Module (TPM)".
*10 When using ExpressCard/34, the card slot cover cannot be closed.
*11 SD Memory Cards that support high-speed transfer rates can be used. Windows Ready Boost function is also supported. Operation has been tested and confirmed using Panasonic SD Memory Cards and SDHC Memory Cards with a capacity of up to 8 GB. Operation on other SD equipment is not guaranteed.
This computer is not compatible with MultiMediaCards. Do not insert this kind of cards.
*12 Theoretical value and not the actual speed. The transfer rate does not become higher even if you use a card that supports the higher transfer rate.
*13 Only for model with Smart Card slot
*14 <Only for North America>
The AC adaptor is compatible with power sources up to 240 V AC adaptor. The computer is supplied with a 125 V AC compatible AC cord. 20-M-2-1
*15 Varies depending on the usage conditions.
*16 Measured using MobileMark™ 2005 (LCD brightness: 60 cd/m^2)
*17 Approx. 0.9 W when the battery pack is fully charged (or not being changed) and the computer is OFF.
*18 Rated power consumption 23-E-1
*19 You need to install to use the feature.
*20 The Product Recovery DVD-ROM is required.
*21 It does not correspond to IEEE802.11.n.
*22 These are speeds specified in IEEE802.11a+b+g standards. Actual speeds may differ.

2. Names and Functions of Parts



A: Bluetooth Antenna
<Only for model with Bluetooth>
➔ *Reference Manual* “Bluetooth”

B: ExpressCard Slot
➔ *Reference Manual* “PC Card / ExpressCard”

C: PC Card Slot
➔ *Reference Manual* “PC Card / ExpressCard”

D: Multimedia Pocket
➔ *Reference Manual* “Multimedia Pocket”

E: Battery Pack

F: Wireless LAN Antenna
<Only for model with wireless LAN>
➔ *Reference Manual* “Wireless LAN”

G: LCD
<Only for model with touchscreen>
➔ *Reference Manual* “Touchscreen”

H: Function Key
➔ *Reference Manual* “Key Combinations”

I: Keyboard

J: Touch Pad

K: LED Indicator

- : Caps lock
- : Numeric key (NumLk)
- : Scroll lock (ScrLk)
- : Multimedia pocket device status or the second battery status
  ➔ *Reference Manual* “Multimedia Pocket” “Battery Power”
- : Hard disk drive status
- : Power status of the multimedia pocket
- : Battery status
  ➔ *Reference Manual* “Battery Power”
- : Power status
  (Off: Power off/Hibernation, Green: Power on, Blinking green: Standby)
- WIRELESS : Wireless ready[*1]
  This indicator lights when Wireless LAN, Bluetooth, and/or Wireless WAN are connected and ready. It does not necessarily indicate the On/Off condition of the wireless connection.
  ➔ *Reference Manual* “Wireless LAN” “Bluetooth” “Disabling / Enabling Wireless Communication”
- : Wireless WAN status
  <Only for model with wireless WAN>
  ➔ Refer to the instruction manual of the wireless device

L: Power Switch

M: Wireless Switch[*1]
➔ *Reference Manual* “Disabling / Enabling Wireless Communication”

N: Carrying Handle

O: Stylus Holder

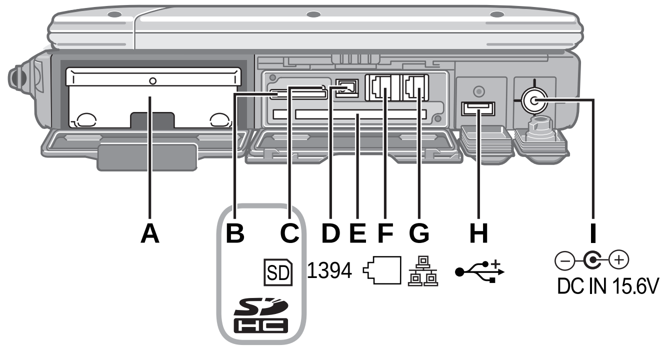
[*1] **<Only for model without both wireless LAN and Bluetooth>**
Both Wireless Switch and Wireless ready indicator are equipped with models without Wireless device as well. Wireless ready indicator lights up when Wireless Switch is turned on, or [Wireless Switch] is set to [Disable] ([Enable] in the default setting) on Setup Utility [Advanced] menu, but Wireless function does not work. (Do not change [Wireless Switch] setting.)

RECYCLE RBRC Li-ion 1.800.822.8837

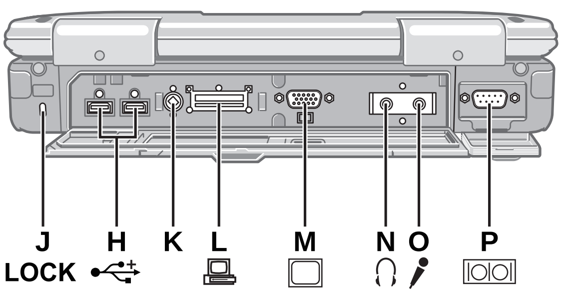
A lithium ion battery that is recyclable powers the product you have purchased.
Please call 1-800-8-BATTERY for information on how to recycle this battery.

L’appareil que vous vous êtes procuré est alimenté par une batterie au lithium-ion.
Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

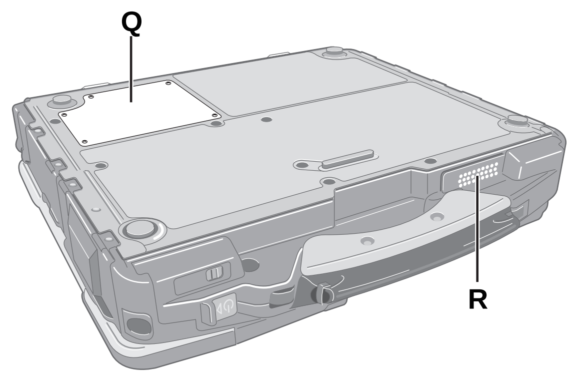
Right side



Rear side



Bottom



A: Hard Disk Drive
➔ *Reference Manual* “Hard Disk Drive”

B: SD Memory Card Slot
➔ *Reference Manual* “SD Memory Card”

C: SD Memory Card Indicator
(Blinking: During access)

➔ *Reference Manual* “SD Memory Card”

D: IEEE 1394 Interface Connector
➔ *Reference Manual* “IEEE 1394 Devices”

E: Smart Card Slot
<Only for model with Smart Card slot>
➔ *Reference Manual* “Smart Card”

F: Modem Port
➔ *Reference Manual* “Modem”

G: LAN Port
➔ *Reference Manual* “LAN”

H: USB Port
➔ *Reference Manual* “USB Devices”

I: DC-IN Jack

J: Security Lock
A Kensington cable can be connected.
For further information, read the manual that comes with the cable.

K: Ext Antenna Connector

L: Expansion Bus Connector
➔ *Reference Manual* “Port Replicator”

M: External Display Port
➔ *Reference Manual* “External Display”

N: Headphone Jack
You can connect headphones or amplified speakers. When they are connected, audio from the internal speakers is not heard.

O: Microphone Jack
A condenser microphone can be used. If other types of microphones are used, audio input may not be possible, or malfunctions may occur as a result.

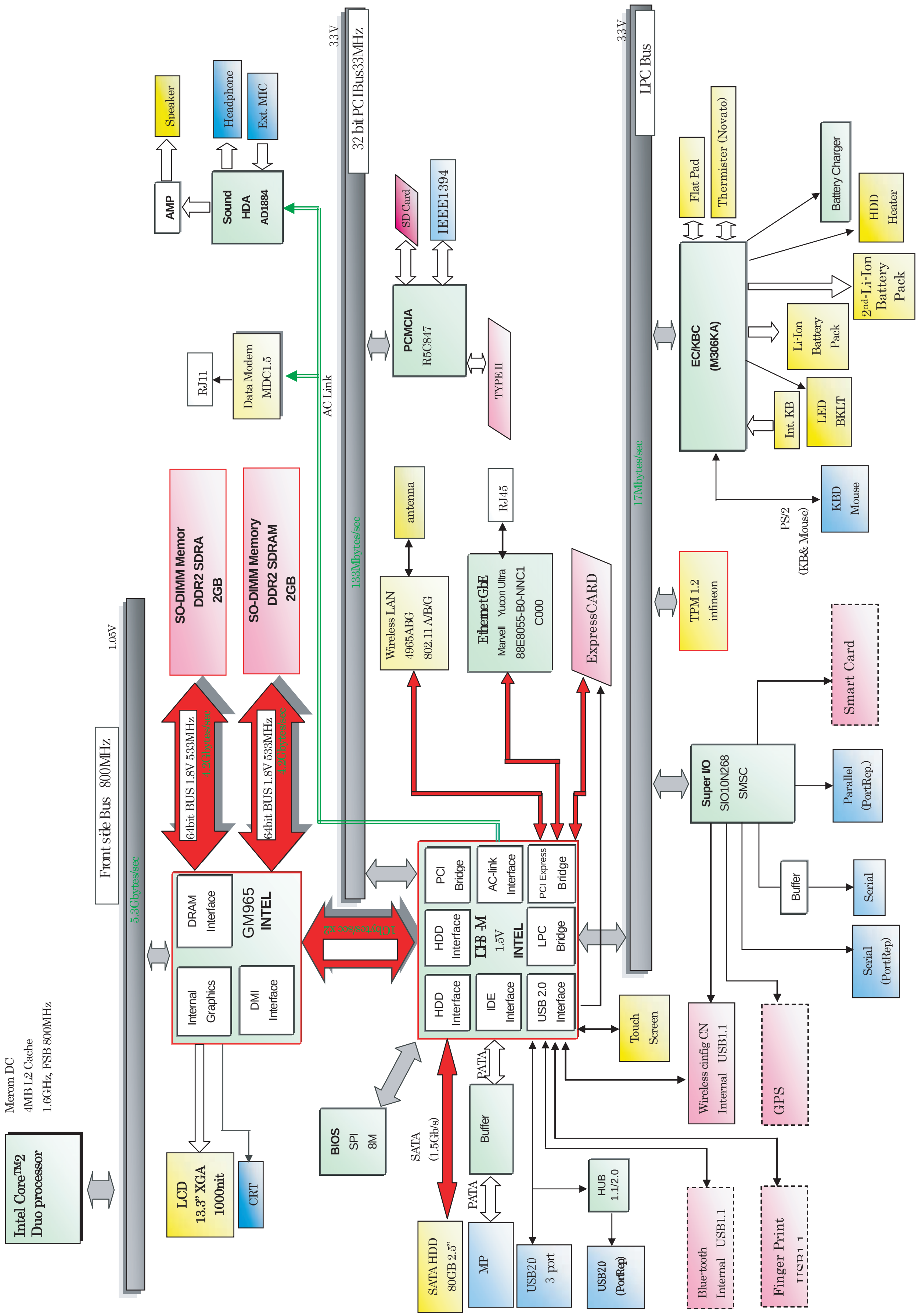
- When recording in stereo using a stereo microphone:
  Click [start] - [All Programs] - [SoundMAX] - [Control Panel] and select [Microphone], and then add a check mark for [No Filtering] in [Microphone Enhancements].
- When using a monaural microphone with a 2-terminal plug:
  Click [start] - [All Programs] - [SoundMAX] - [Control Panel] and select [Microphone], and then add a check mark for [Voice Recording] in [Microphone Enhancements].
  Otherwise, only audio on the left track will be recorded.

P: Serial Port

Q: RAM Module Slot
➔ *Reference Manual* “RAM Module”

R: Speaker
➔ *Reference Manual* “Key Combinations”

3 Block Diagram

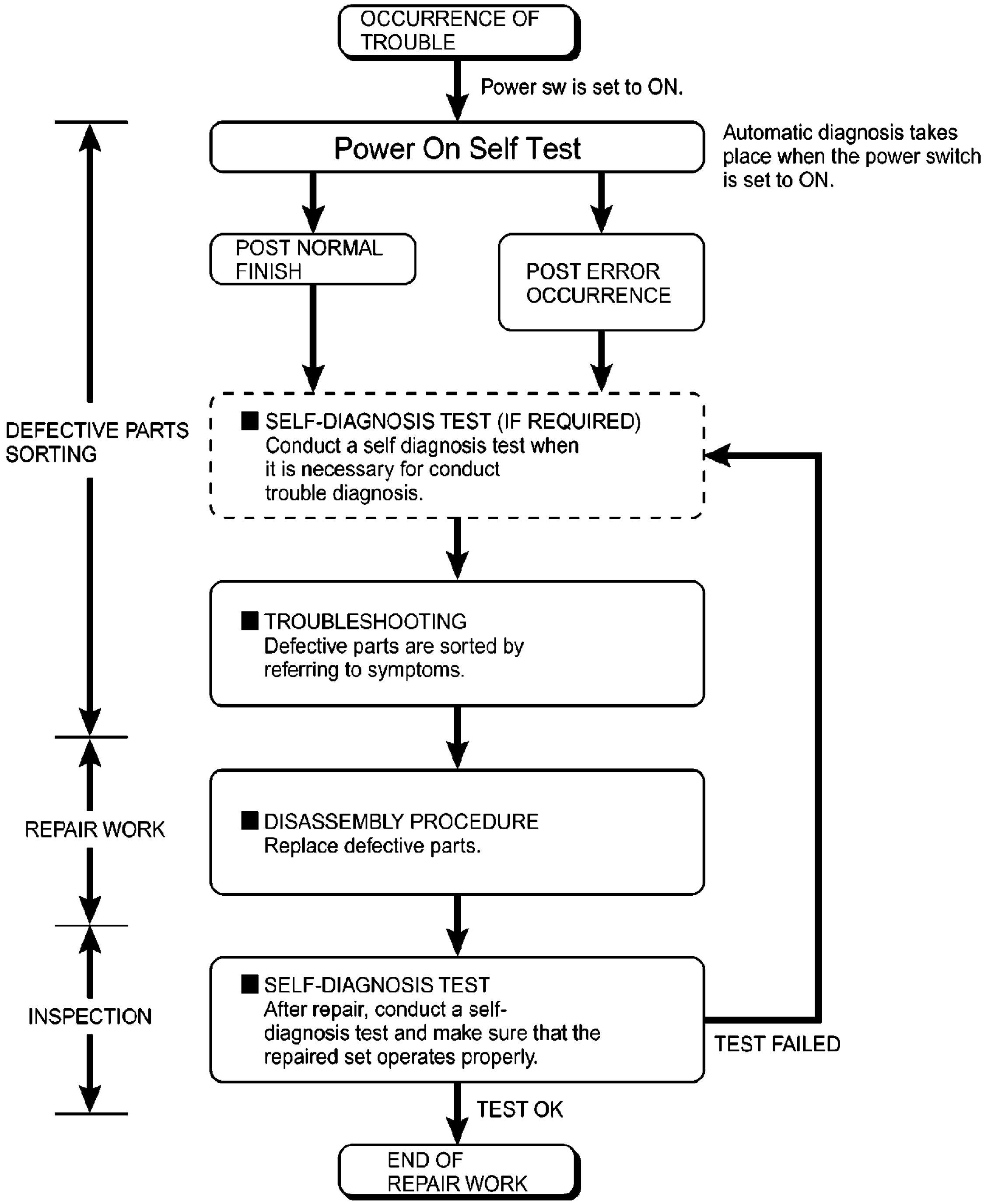


4 Diagnosis Procedure

4.1. Basic Procedures

The basic procedures for diagnosis, disassembly, and test of defective parts of a set to be repaired are summarized below. For details, refer to relevant pages in the Service Manual.

● **Flow Chart**

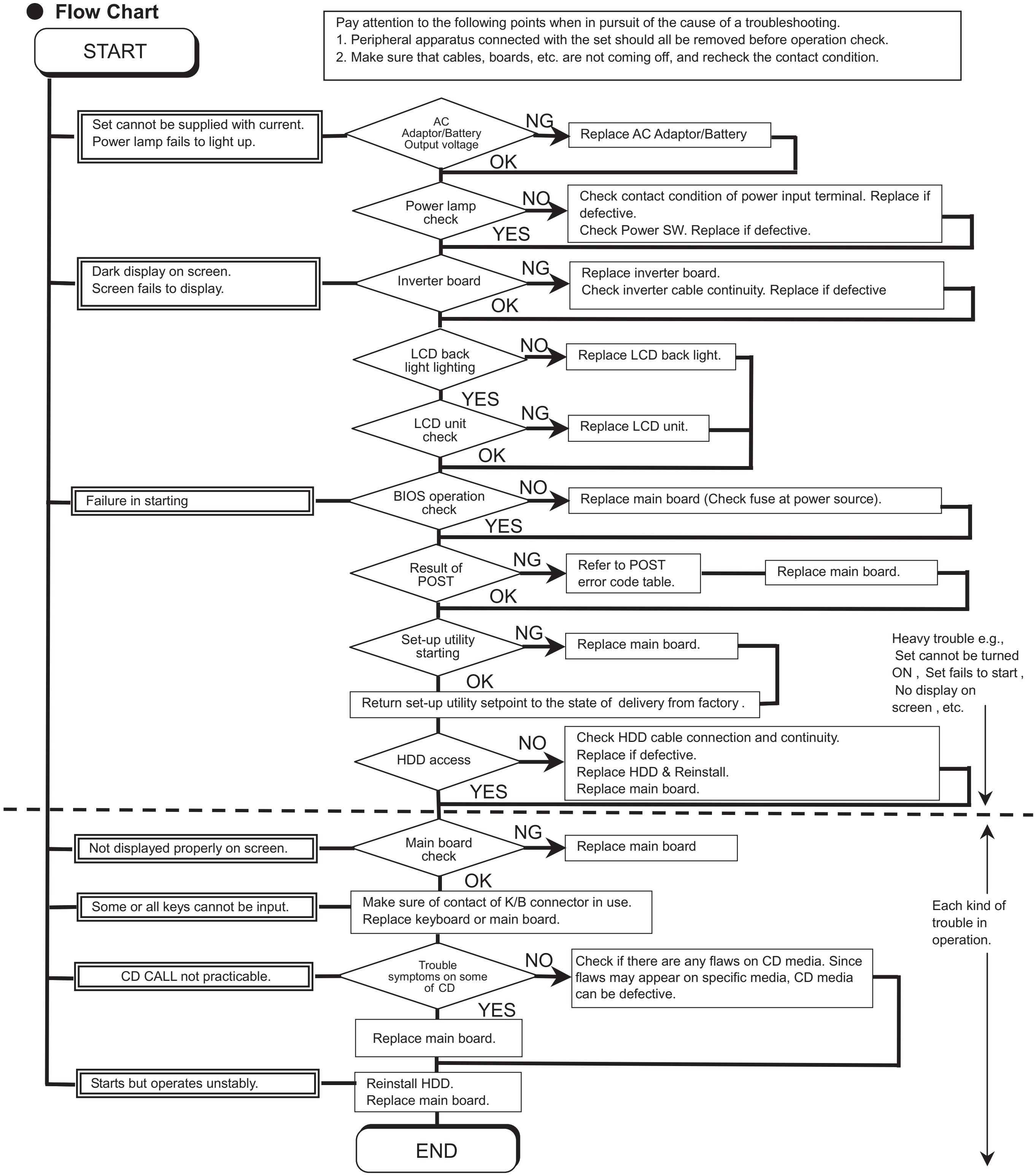


4.2. Troubleshooting

Please take note of the following two points with regard to troubleshooting:

1. Know-how of diagnosis upon occurrence of heavy troubles, e.g. Set cannot be turned ON , Set fails to start , No display on screen , etc.
2. Explanation of each trouble, mainly symptom of trouble in operation.

● **Flow Chart**



5 Power-On Self Test (Boot Check)

Outline of POST

The set has a boot check function called POST (Power-On Self Test) in it.
The condition of the main body is diagnosed by checking beep sound or error code.

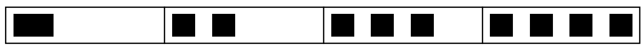
Start ....Test begins automatically when power switch is set to ON.

Normal finish .....After memory checking, a beep sound is issued once and the set is placed into automatic stop.

Note: If no error occurs, nothing is displayed. (No display of OK, etc.)

Error Diagnosis by Checking Beep Signal Sound

The beep sound is as follows:



(1 (long sound) -2-3-4)

(Length of bar shows length of sound.)

= long sound (about 0.4 sec.), = short sound (about 0.2 sec.), Length between sounds is about 0.1 sec.

Table of errors classified by beep sounds

Diagnosis	Beep signal sound	Error message
Main board	1(long sound)-2	BIOS ROM error
	1-2-2-3	BIOS ROM error
	1-3-1-1	RAM error
	1-3-1-3	Keyboard controller error
	1-3-4-1	RAM error
	1-3-4-3	RAM error
	1-4-1-1	RAM error
	2-1-2-3	BIOS ROM error
	2-2-3-1	Occurrence of unexpected offering

(Note) A beep sound is also issued in case of other I/O trouble.

6 List of Error Codes <Only when the port replicator is connected>

The following is a list of the messages that BIOS can display. Most of them occur during POST. Some of them display information about a hardware device, e.g., the amount of memory installed. Others may indicate a problem with a device, such as the way it has been configured. Following the list are explanations of the messages and remedies for reported problems.
If your system displays one of except the messages marked below with an asterisk (*), write down the message and contact Panasonic Technical Support. If your system fails after you make changes in the Setup menus, reset the computer, enter Setup and install Setup defaults or correct the error.

0200 Failure Fixed Disk
Fixed disk in not working or not configured properly. Check to see if fixed disk is attached properly. Run Setup. Find out if the fixed-disk type is correctly identified.

0210 Stuck key
Stuck key on keyboard.

0211 Keyboard error
Keyboard not working.

0212 Keyboard Controller Failed
Keyboard controller failed test. May require replacing keyboard controller.

0213 Keyboard locked - Unlock key switch
Unlock the system to proceed.

0230 System RAM Failed at offset : *nnnn*
System RAM failed at offset *nnnn* of in the 64k block at which the error was detected.

0231 Shadow RAM Failed at offset : *nnnn*
Shadow RAM failed at offset *nnnn* of the 64k block at which the error was detected.

0232 Extended RAM Failed at offset : *nnnn*
Extended memory not working or not configured properly at offset *nnnn*.

0250 System battery is dead - Replace and run SETUP
The CMOS clock battery indicator shows the battery is dead. Replace the battery and run Setup to reconfigure the system.

***0251 System CMOS checksum bad - Default configuration used**
System CMOS has been corrupted or modified incorrectly, perhaps by an application program that changes data stored in CMOS. The BIOS installed Default SETUP Values. If you do not want these values, enter Setup and enter your own values. If the error persists, check the system battery or contact Panasonic Technical Support.

0260 System timer error
The timer test failed. Requires repair of system board.

0270 Real time clock error
Real-time clock fails BIOS test. May require board repair.

***0280 Previous boot incomplete - Default configuration used**
Previous POST did not complete successfully. POST loads default values and offers to run Setup. If the failure was caused by incorrect values and they are not corrected, the next boot will likely fail. On systems with control of **wait states**, improper Setup settings can also terminate POST and cause this error on the next boot. Run Setup and verify that the wait-state configuration is correct. This error is cleared the next time the system is booted.

0281 Memory Size found by POST differed from EISA CMOS
Memory size found by POST differed from EISA CMOS.

02D0 System cache error - Cache disabled
Contact Panasonic Technical Support.

02F0: CPU ID:
CPU socket number for Multi-Processor error.

02F4: EISA CMOS not writable
ServerBIOS2 test error: Cannot write to EISA CMOS.

02F5: DMA Test Failed
ServerBIOS2 test error: Cannot write to extended DMA (Direct Memory Access) registers.

02F6: Software NMI Failed
ServerBIOS2 test error: Cannot generate software NMI (Non-Maskable Interrupt).

02F7: Fail - Safe Timer NMI Failed
ServerBIOS2 test error: Fail-Safe Timer takes too long.

***device* address Conflict**
Address conflict for specified *device*.

Allocation Error for: *device*
Run ISA or EISA Configuration Utility to resolve resource conflict for the specified *device*.

Failing Bits : *nnnn*
The hex number *nnnn* is a map of the bits at the RAM address which failed the memory test. Each 1 (one) in the map indicates a failed bit. See error 230,231 or 232 for offset address of the failure in System, Extended or Shadow memory.

Invalid System Configuration Data
Problem with NVRAM (CMOS) data.

I/O device IRQ conflict
I/O device IRQ conflict error.

Operating System not found
Operating system cannot be located on either drive A: or drive C:. Enter Setup and see if fixed disk and drive A: are properly identified.

Parity Check 1 *nnnn*
Parity error found in the system bus. BIOS attempts to locate the address and display it on the screen. If it cannot locate the address, it displays ????. Parity is a method for checking errors in binary data. A parity error indicates that some data has been corrupted.

Parity Check 2 *nnnn*
Parity error found in the I/O bus. BIOS attempts to locate the address and display it on the screen. If it cannot locate the address, it displays ????.

Press <F1> to resume, <F2> to Setup
Displayed after any recoverable error message. Press <F1> to start the boot process or <F2> to enter a Setup and change the settings. Write down and follow the information shown on the screen.

7 Self Diagnosis Test

As for the self-diagnosis test(PC-Diagnostic utility) to use this model, a standard test and the enhancing test by the module of the main body building in are possible.

●Notes To skip BIOS password

Use <Ctrl>+<F10> key to skip BIOS password or authentication of fingerprint.
This key is only for entering DIAG mode. Not available to boot the computer.
If customer set "HDD Lock", the DIAG program cannot perform HDD test.
*This key is for service purpose only. Do not disclose this information to unrelated others.

1. Beginning of self-diagnosis test

1-1. Setting of content of setup

1. The power supply of the computer is turned on.
2. " F2 " is pushed on the screen of "Panasonic" while " press <F2 to enter Setup> " is displayed.
3. The setup utility starts and then takes notes of the content of the BIOS setup of present set.
4. " F9 " is pushed, " Yes" is selected on the screen of " Is the default value loaded? ", and " Enter" is pushed.
5. " F10 " is pushed.
6. " Yes" is selected on the screen of the setup confirmation, and " Enter" is pushed.
7. The computer starts automatically.

Attention

・If the device which can be set is set to "Invalidity" by "Advanced" or "Security" menu, becomes an error by "PC-Diagnostic utility".
(It is judged that the device which can be set to "Invalidity" by "Main" menu such as "Flat pad" is normal if the controller operates normally though sets to "Invalidity" by the setup.)
・In the model with built-in DVD of the USB connection, even if DVD is normal, becomes an error if legacy USB is set to "Invalidity"

1-2. When you execute an automatic test

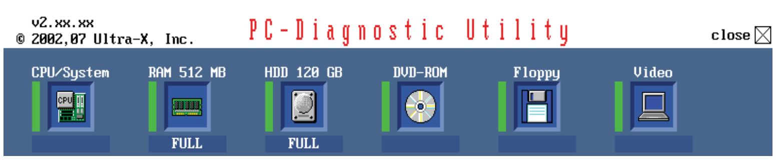
1. "Ctrl" + "F7" is pushed while the "Panasonic" start screen is displayed after the computer is started.
2. The test of all devices begins automatically by "PC-Diagnostic utility" 's starting.

Attention

・It is a test which the customer who bought PC can execute. (As for HDD, the enhancing test is also possible.)
・A flat pad does not work for a while after starting "PC-Diagnostic utility".
・The movement of a flat pad might become abnormal If after RAM begins from the CPU/System test, a flat pad will be operated in about 30 seconds. In that case,restarts pushing"Alt" + "Ctrl" + "Del" key. Or, please start "PC-Diagnostic utility" again after doing the power supply switch in the slide, and turning off the power supply.

1-3. When you execute the enhancing test

1. Please let me discontinue diagnosing clicking to end an automatic test.
2. Please click on the character of "D" "PC-Diagnostic utility" on the screen while pushing both of right "Shift" and left "Shift" keys.



3. All devices which can select the enhancing test make the setting of the enhancing test possible.
4. The district device is made"FULL" display (enhancing test).
5. The test begins clicking .

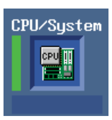
*Please refer to item 4 for the error result of each test and the division of the breakdown part.

2. Operation of PC-Diagnostic Utility

-Only the device which can be inspected on the entire screen is displayed.
-The item does not appear when the device of wireless LAN etc. is not physically connected.
-The movement of the item must use an arrow key or a flat pad.



-As for the device under the diagnosis, blue and yellow are alternately displayed at the left of the icon.
- The diagnosis result of the device greens at the left of the icon when it is normal, and becomes red when abnormal.



-When the test of all devices ends, the test result is displayed under the right of the screen.



-Please click  while diagnosing when being stop on the way by the time the test of all devices ends.
-Please click  when you restart "PC-Diagnostic utility".
*Each device is tested from the beginning, and it is not possible to restart on the way.
-When the test of all devices ends, the test result is displayed under the right of the screen.

2-1. Selection of tested device

-To test only a specific device, "Test" and "Do not test" of each device can be selected.
-The device which can select the enhancing test changes in order of "The standard is tested" and "Do not test" whenever the device icon is clicked.



Start the standard test



Do not test

Please begin testing clicking ▷ if the selection of the tested device ends.

2-2. "PC-Diagnostic utility" End method

When ⊠ of "Close" on the right of the screen is clicked, the computer reactivates automatically. Or, the power supply switch is done in the slide and the power supply is turned off.

2-3. The content of the setup is returned to the setting of the user

1. Turned on the computer.
2. "F2" is pushed on the screen while "Press<F2>to enter Setup" is displayed of "Panasonic".
3. Push "F10", and on the screen of "Is the change in the setting preserved and do end?"and then "Yes" is selected, and "Enter" is pushed.
4. The computer reactivates automatically.
5. The end option is chosen by the start menu, and the power supply of the computer is turned off.

Standard at test time
All devices other than RAM and HDD ---------- about 1 minute
RAM standard test ----------------------------------- 1 - 2 minutes
HDD standard test ----------------------------------- 2 - 3 minutes
HDD enhancing test (60GB) ---------------------- about 40 minutes

Ex.The standard when the standard <all device> is tested becomes 1+2+3=6 minutes.

- ■ There is greatly a difference from RAM test when the memory is increased according to the performance of the memory occasionally.
- ■ Moreover, when the main body of PC under the test is a high temperature, it occasionally takes time.
- ■ There is greatly a difference from HDD according to the performance of the drive occasionally.

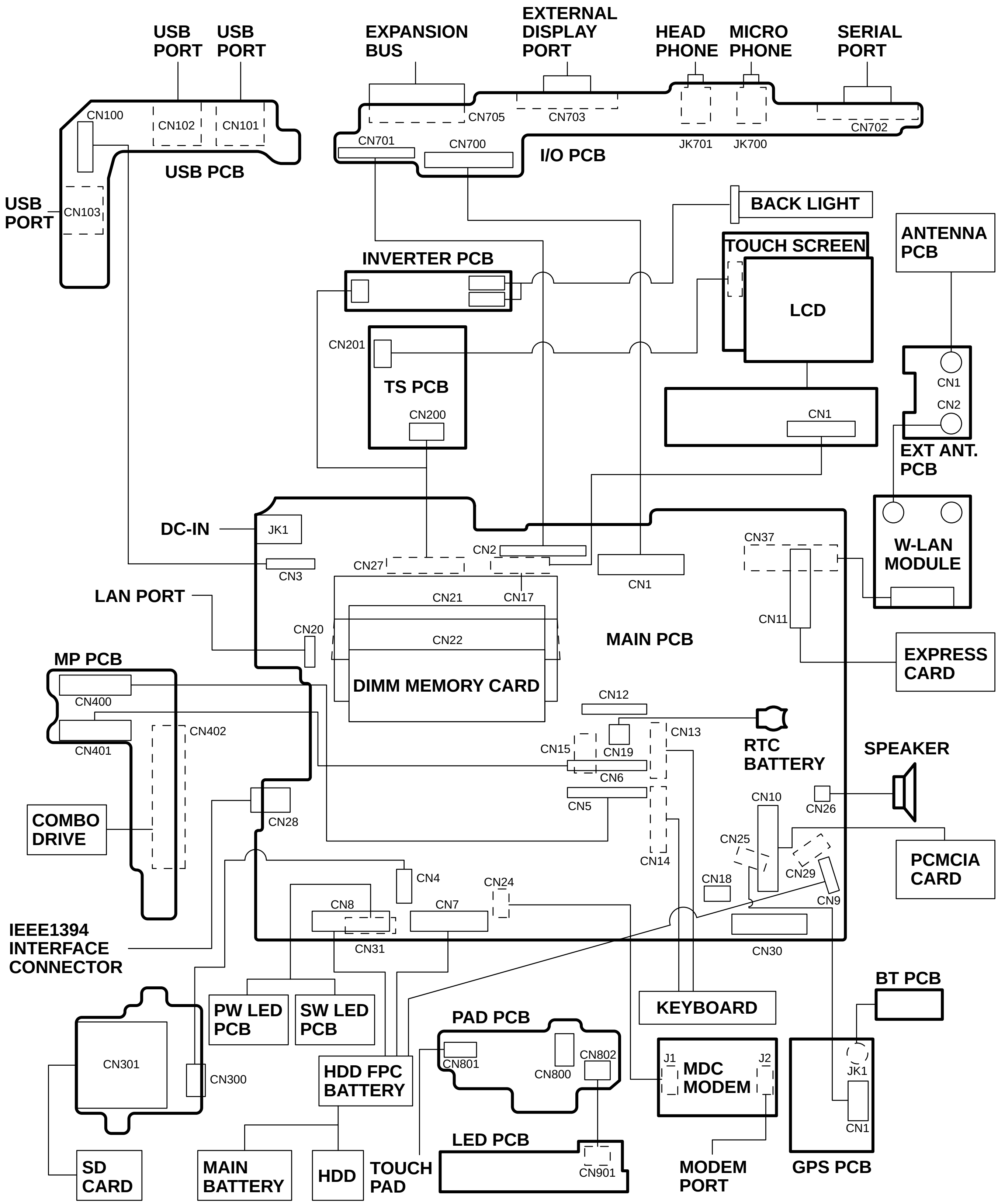
3. Test Item and Division of trouble

Test item	Stanard	Enhan-cing	Content of standard test	Content of enhancing test	Place with possibility of breakdown
CPU / SYSTEM	○	—	CPU is shifted to protected mode, and "Violation of the paging", "Operation of the violation of a privileged instruction", and DMA, INT, TIMER, and the RTC operation are confirmed.	—	CPU / Main board
RAM	○	—	All memory space is tested in a special memory access pattern based on "R.S.T . technology".	—	Memory / Mainboard
HDD	○	○	The record area frequently accessed with Microsoft Windows XP to test in about two minutes regardless of points of HDD is emphatically tested.	All record area is tested.	HDD / Mainboard / Cable / Connector
MODEM	○	—	It is confirmed not to find abnormality in the AC97 modem controller.	—	MODEM/ Mainboard
Wireless LAN	○	—	It is confirmed not to find abnormality in the Wireless LAN modem controller.	—	Wireless LAN board / Connector / Mainboard
Sound *5	○	—			
USB	○	○ *1	It is confirmed not to find abnormality in the USB controller.	It is confirmed not to find ab-normalityin the wiring between the USB controller and the connector by confirming the connection of the USB equipment connected with the USB connector.	Mainboard / Connector
LAN	○	○ *2	It is confirmed not to find abnormality in the LAN controller.	It is confirmed not to find ab-normalityin the wiring between the controller and the connector by connecting to HUB with LAN cable.	Mainboard / Connector
PC Card	○	—	It is confirmed not to find abnormality in the CardBus controller.	—	Mainboard
SD	○	—	It is confirmed not to find abnormality in the SD controller.	—	Mainboard
Keyboard	○	○ *3	It is confirmed not to find abnormality in keyboard controller's keyboard inte-rface.	The key is actually input, and the operation is displayed on the screen.	Mainboard / Keyboard
Touch Pad	○	○ *4	Whether keyboard controller's mouse interface operates normally is confir-med.	The operation is actually dis-played on the screen by ope-rating the touch pad.	Mainboard / Touch Pad
DVD-ROM	○	○ *6	The drive is normally reset, and it is accessible is confirmed.	It is confirmed to be able to read media normally.	Mainboard / DVD Drive / DVD Cable / DVD Connector

Test Item	Standard	Enhanced	Content of Standard Test	Content of Extend Test	The place with possibility of breakdown
Touch Screen	○	○	It is confirmed not to find abnormality in the USB connection of Touch Screen. This test cannot find abnormality of Touch Screen.	Perform Touch Screen functionality practically. Operator has to judge PASS/FAIL with test result.	Main board/ Touch Screen
Bluetooth	○		It is confirmed not to find abnormality in the connection of Main board and Bluetooth module.	—	Bluetooth cable
Wireless WAN	○	—	It is confirmed not to find abnormality in the connection of Main board and Wireless WAN module.	—	WWAN cable
Floppy	○	—	It is confirmed not to find abnormality in the legacy FD drive. This test cannot find abnormality of mechanical breakdown. (e.g.. Head, Motor)	—	FD Drive/ Main board (Super I/O)/ FDD cable FDD connector
Video	○	—	It is confirmed not to find abnormality in access to VRAM with VESA. The PC which uses main memory as VRAM may fail with main memory failure.	—	Main board (Chipset, Graphic Controller)/ Memory
GPS	○	—	It is confirmed not to find abnormality in the connection of Main board and GPS	—	GPS cable
IEEE1394	○	—	It is confirmed not to find abnormality in the IEEE1394 controller.	—	Main board (IEEE1394 Controller)
Express Card	—	○	—	It is confirmed not to find abnormality in the wiring between Chipset and Express Card.	Main board (Chipset)/ Express Card Connector
Smart Card	○	—	It is confirmed not to find abnormality in the Smart Card controller.	—	Main board (Smart Card Controller)
Serial Port	○	○ *7	It is confirmed not to find abnormality of Super I/O UART function. This test cannot find lack of wiring between Super I/O and Serial Connector.	It is confirmed not to find abnormality in the wiring between Super I/O and Serial Connector. This test cannot find failure of cable characteristic and device problems.	Main board (Super I/O)/ Serial Connector
Parallel Port	○	○ *8	It is confirmed not to find abnormality of Super I/O parallel function. This test cannot find lack of wiring between Super I/O and Parallel Connector.	It is confirmed not to find abnormality in the wiring between Super I/O and Parallel Connector. This test cannot find failure of cable characteristic and device problems.	Main board (Super I/O)/ Parallel Connector

*1 Please connect the USB device with the port (USB connector) which wants to test before the tests.
*2 Please connect LAN port with LAN HUB with LAN cable before the tests.
*3 The operator actually inputs the key, and the operator judges PASS/FAIL of the test.
*4 The operator actually operates the mouse, and the operator judges PASS/FAIL of the test.
*5 It is not abnormal though the sound is emitted from the speaker while testing.
※ When the test result is PASS, trouble is thought by not hearing of the sound under the test from the speaker and the headphone by the wiring of the audio output system.
*6 Please set DVD/CD media in the drive before the tests.
*7 Please set a Special Loop Back Connector Tool at serial connector for Enhanced Test.
(This Connector Tool is same as the one used before.)
*8 Please set a Special Loop Back Connector Tool at parallel connector for Enhanced Test.
(This Connector Tools is same as the one used before.)

Wiring Connection Diagram



7 Disassembly/Reassembly

Note:

Power off the computer. Do not shut down to the Suspend or hibernation mode.

Do not add peripherals while the computer is in the Suspend or hibernation mode; abnormal operation may result.

7.1. Disassembly Instructions

7.1.1. Preparation

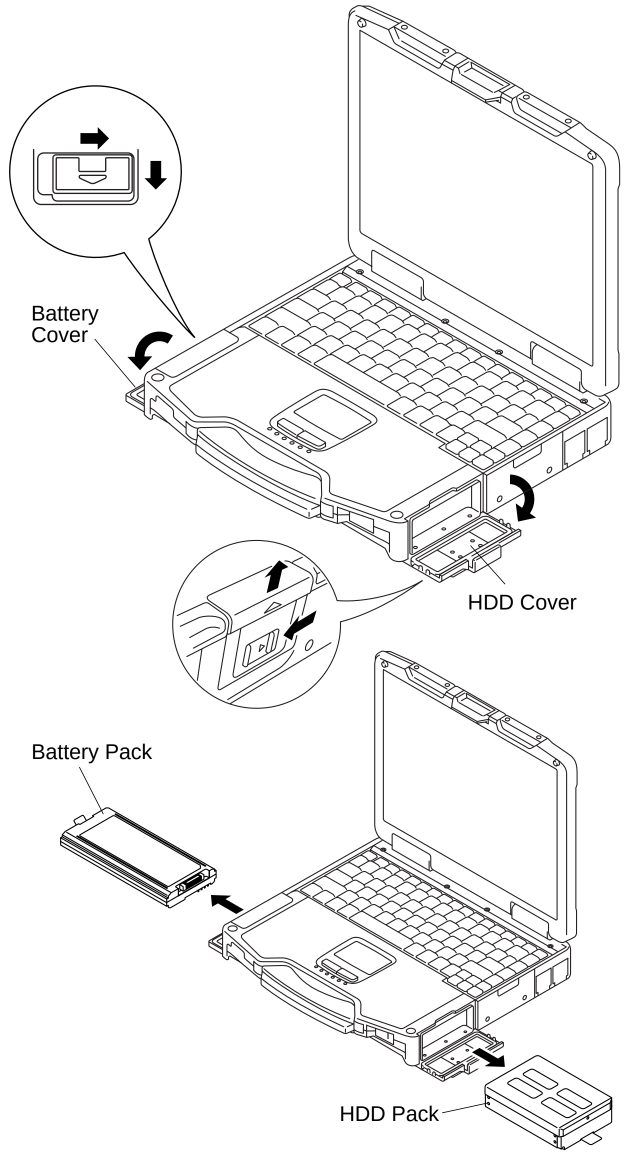
Before disassembling, be sure to make the following preparations.

- Shut down Windows and turn off the power.
- Disconnect the AC adaptor.
- Remove the optional DIMM memory card and PCMCIA card if they are connected.
- Remove other devices if they are connected.

Attention:

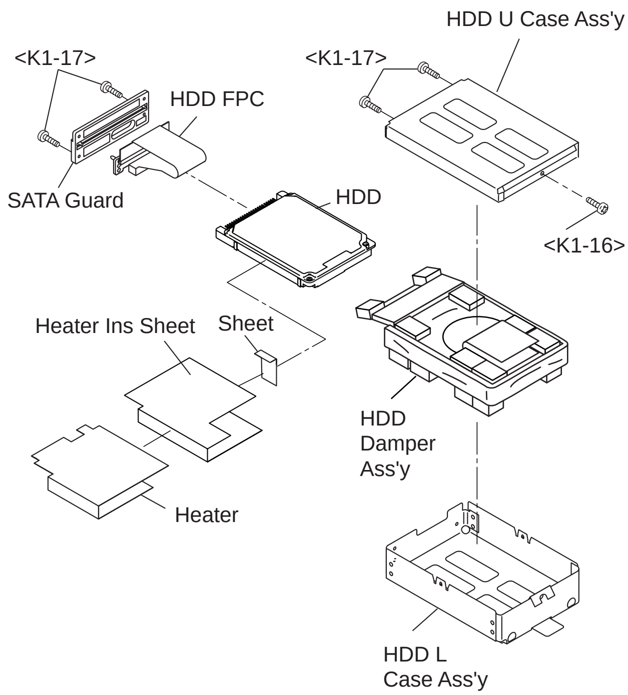
- Please execute writing BIOS ID when you exchange the Main Board.
- Parts (Sheet and rubber) etc. related various the Conductive Cloth and Heat Spreader cannot be recycled. Use new parts.

7.1.2. Removing the Battery Pack and HDD Pack



1. Open the Battery Cover.
2. Remove the Battery Pack.
3. Open the HDD Cover.
4. Remove the HDD Pack.

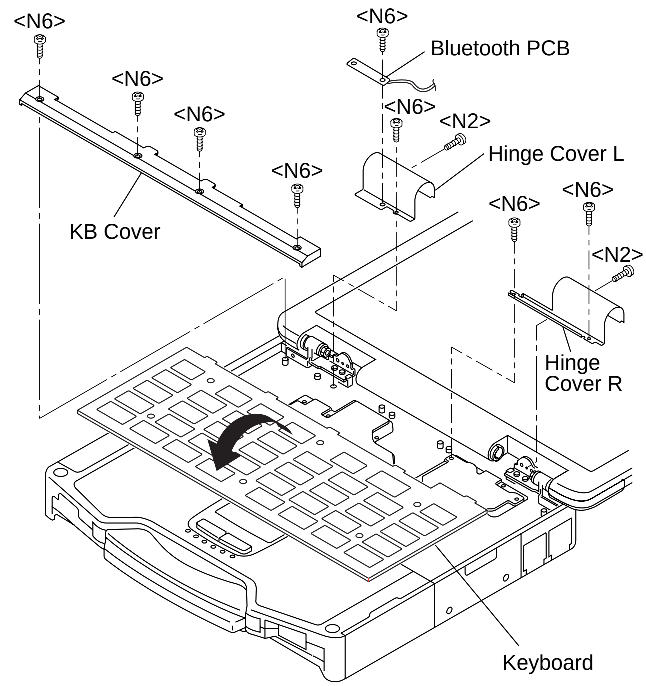
7.1.3. Removing the HDD



1. Remove the Screw. <K1-16>
2. Remove the 4 Screws. <K1-17>
   And remove the SATA Guard.
3. Release the 2 Tabs, and remove the HDD U Case Ass'y and the HDD L Case Ass'y.
4. Remove the HDD Dumper Ass'y.
5. Remove the Sheet.
6. Remove the Heater and the Heater Ins Sheet.
7. Remove the HDD FPC.

Screws <K1-16>: DFHE5025XA
Screws <K1-17>: DRQT2+E8FKL

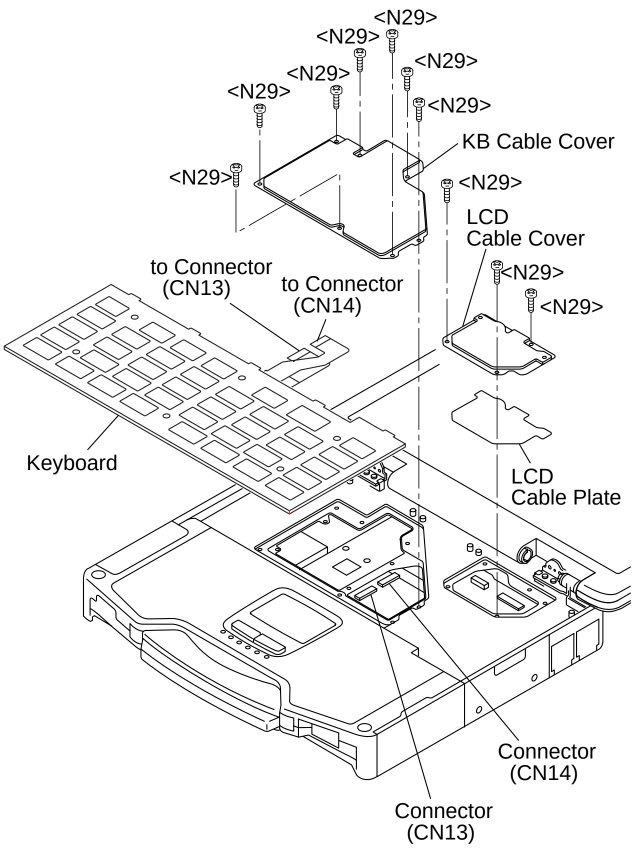
7.1.4. Removing the KB Cover, Hinge Cover L, Hinge Cover R and Keyboard



1. Remove the 4 Screws <N6>, and remove the KB Cover.
2. Remove the 2 Screws <N2> and the 3 Screws <N6>, and remove the Hinge Cover L,R.
3. Remove the Keyboard.

Screws <N2>: DRHM5054XA
Screws <N6>: DRQT26+E4FKL

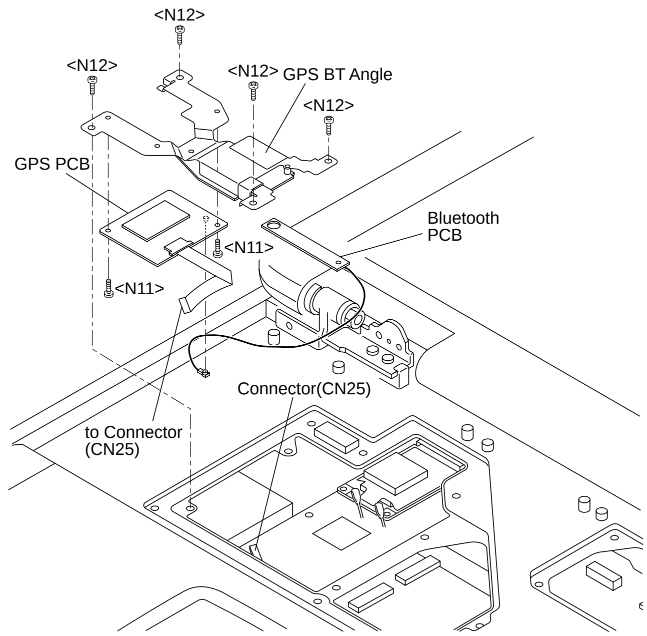
7.1.5. Removing the KB Cable Cover and LCD Cable Cover



1. Remove the 3 Screws <N29>.
2. Remove the LCD Cable Cover.
3. Remove the LCD Cable Plate.
4. Remove the 7 Screws <N29>.
5. Remove the KB Cable Cover.
6. Disconnect the 2 Cable from the 2 Connectors (CN13, CN14).
7. Remove the Keyboard.

Screws <N29>: DRQT26+E3FNL

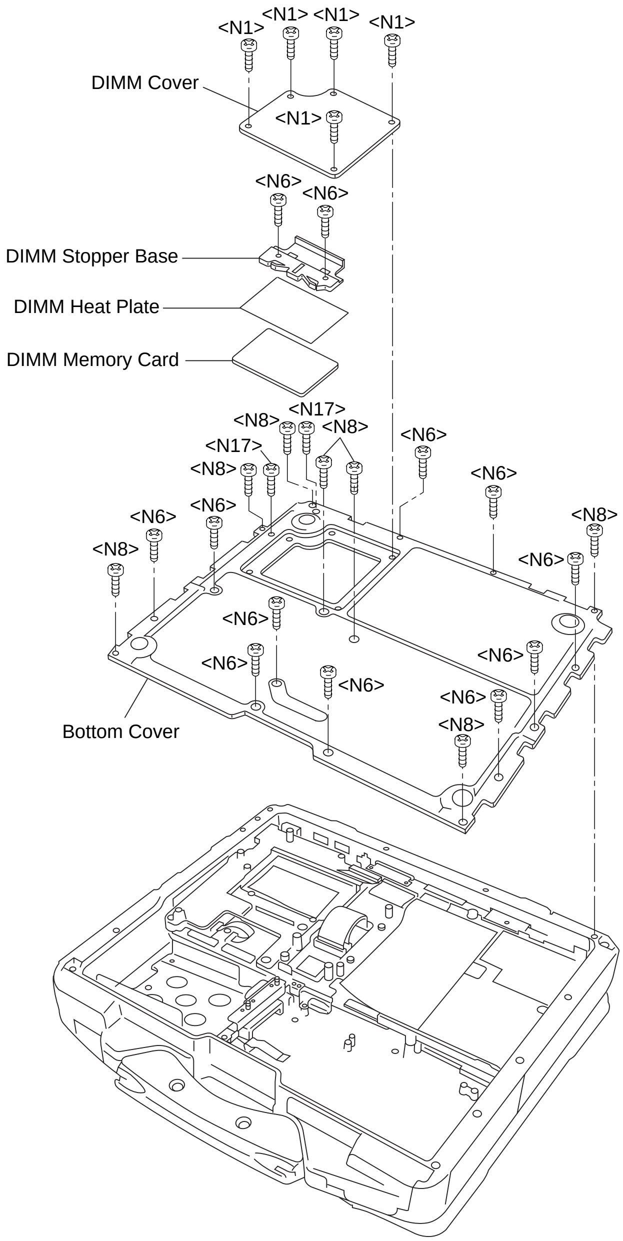
7.1.6. Removing the GPS PCB and Bluetooth PCB



1. Disconnect the Cable from the Connector. (CN25)
2. Remove the 4 Screws. <N12>
3. Remove the 2 Screws. <N11>
4. Remove the Bluetooth PCB, GPS BT Angle and GPS PCB.

Screws <N11>: DFHE5025XA
Screws <N12>: DXQT2+F3FNL

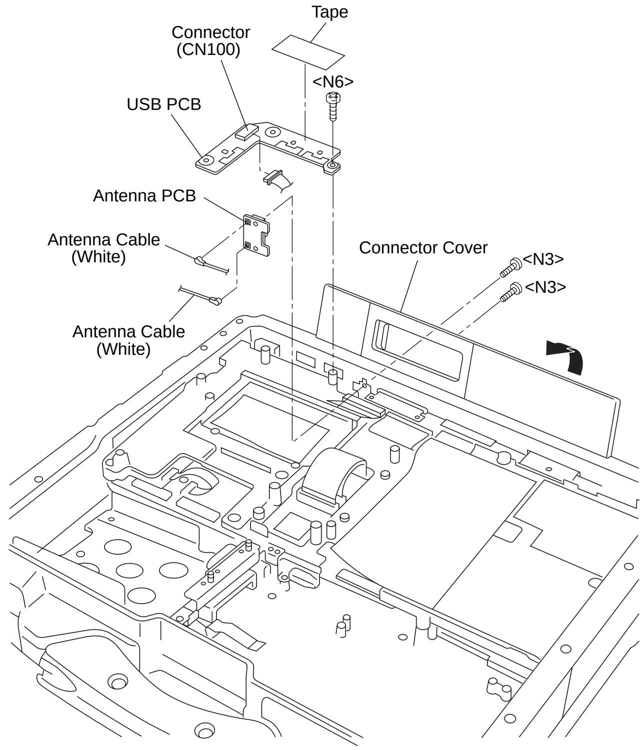
7.1.7. Removing the DIMM Cover and Bottom Cover



1. Remove the 5 Screws. <N1>
2. Remove the DIMM Cover.
3. Remove the 2 Screws. <N6>
4. Remove the DIMM Stopper Base.
5. Remove the DIMM Heat Plate.
6. Remove the DIMM memory card.
7. Remove the 6 Screws. <N8>
8. Remove the 11 Screws. <N6>
9. Remove the 2 Screws. <N17>
10. Remove the Bottom Cover.

Screws <N1>: DRHM0002ZA
Screws <N6>: DRQT26+E4FKL
Screws <N8>: DRSB3+8FKL
Screws <N17>: DRQT26+E6FKL

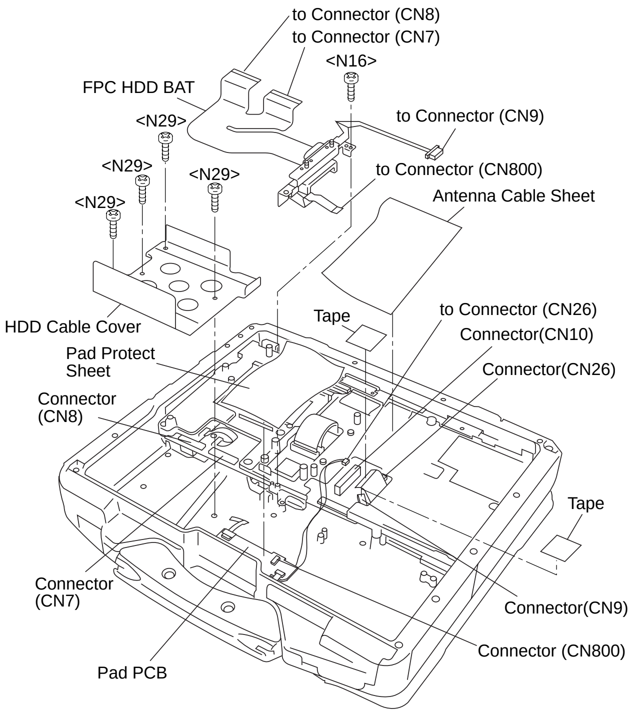
7.1.8. Removing the USB PCB and Antenna PCB



1. Remove the Screw. <N6>
2. Disconnect the Cable from the Connector. (CN100)
3. Remove the Tape.
4. Remove the USB PCB.
5. Open the Connector Cover.
6. Remove the 2 Screws. <N3>
7. Remove the 2 white Cables and remove the Antenna PCB.

Screws <N3>: DRQT2+G6FKL
Screws <N6>: DRQT26+E4FKL

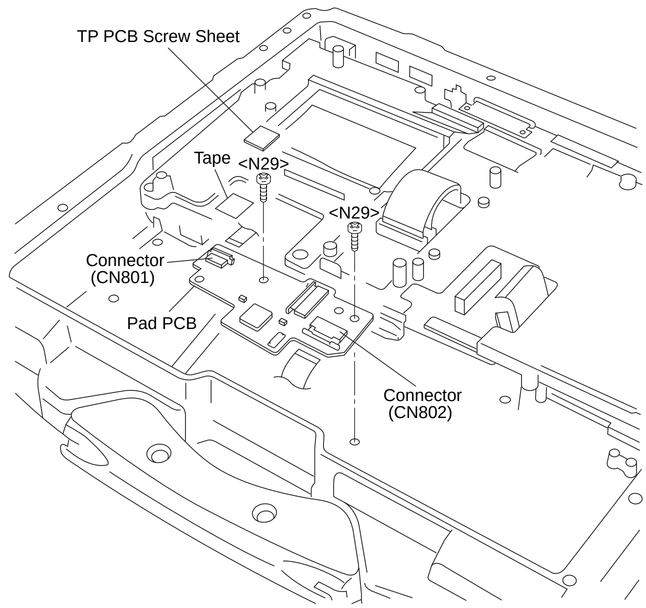
7.1.9. Removing the FPC HDD BAT



1. Remove the 4 Screws. <N29>
2. Remove the HDD Cable Cover.
3. Remove the Antenna Cable Sheet.
4. Remove the 2 Tapes.
5. Disconnect the 2 Cables from the 2 Connectors. (CN10,CN26)
6. Remove the Tape.
7. Disconnect the Cable from the Connector. (CN9)
8. Remove the Pad Protect Sheet.
9. Disconnect the Cable from the Connector. (CN800)
10. Disconnect the 2 Cables from the 2 Connectors. (CN7,CN8)
11. Remove the Screw. <N16>
12. Remove the FPC HDD BATT.

Screws <N16>: DRQT26+E5FKL
Screws <N29>: DRQT26+E3FNL

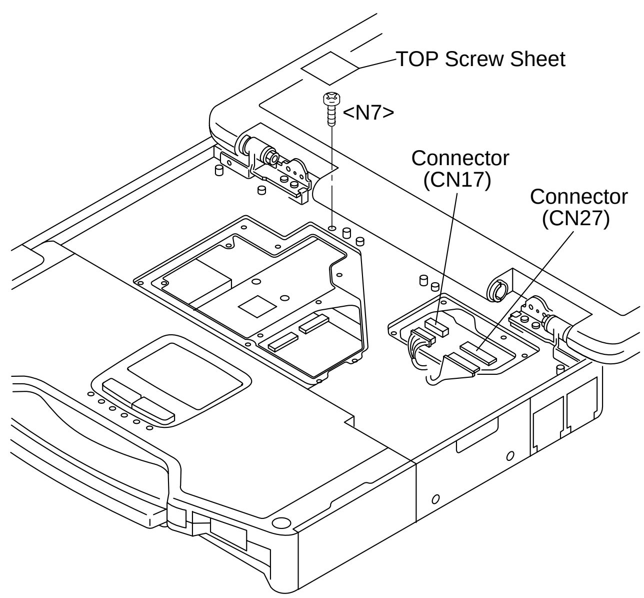
7.1.10. Removing the PAD PCB



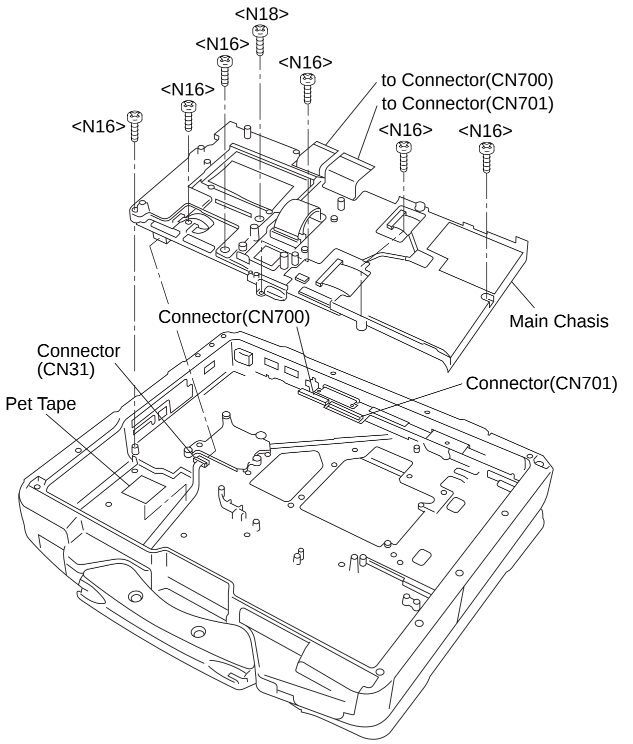
1. Remove the Tape and disconnect the Cable from the Connector. (CN801)
2. Disconnect the Cable from the Connector. (CN802)
3. Remove the TP PCB Screw Sheet.
4. Remove the 2 Screws. <N29>
5. Remove the PAD PCB.

Screws <N29>: DRQT26+E3FNL

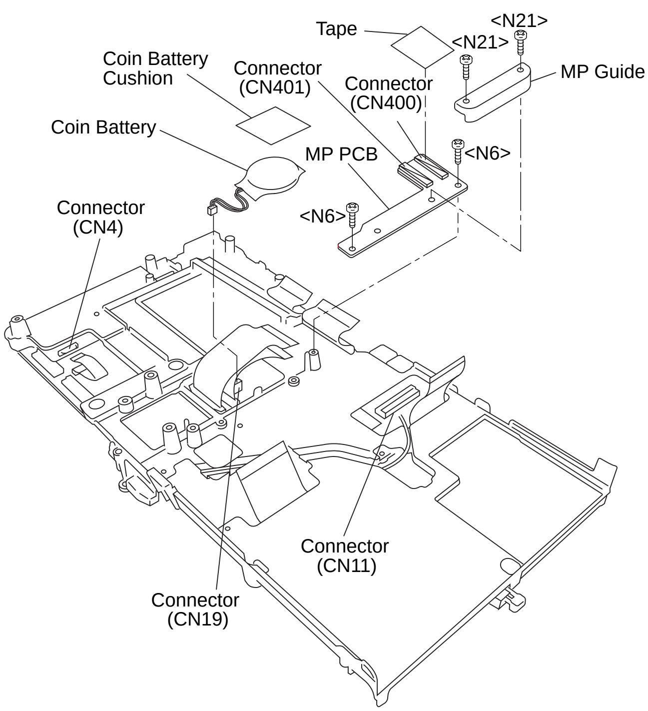
7.1.11. Removing the Main PCB



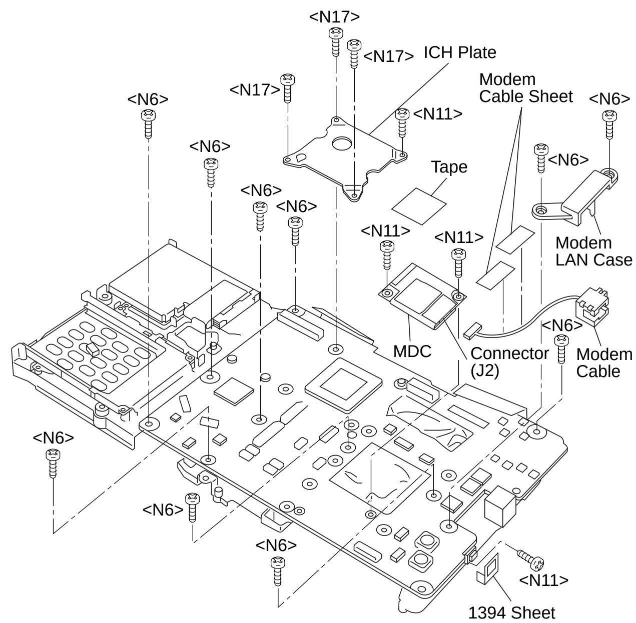
1. Remove the TOP Screw Sheet.
2. Remove the Screw. <N7>
3. Disconnect the 2 Cables from the 2 Connectors. (CN17,CN27)



4. Remove the 6 Screws. <N16>
5. Remove the Screw. <N18>
6. Disconnect the 2 Cables from the 2 Connectors. (CN700,CN701)
7. Remove the Pet Tape and disconnect the Cable from the Connector. (CN31)
8. Remove the Main chasis.



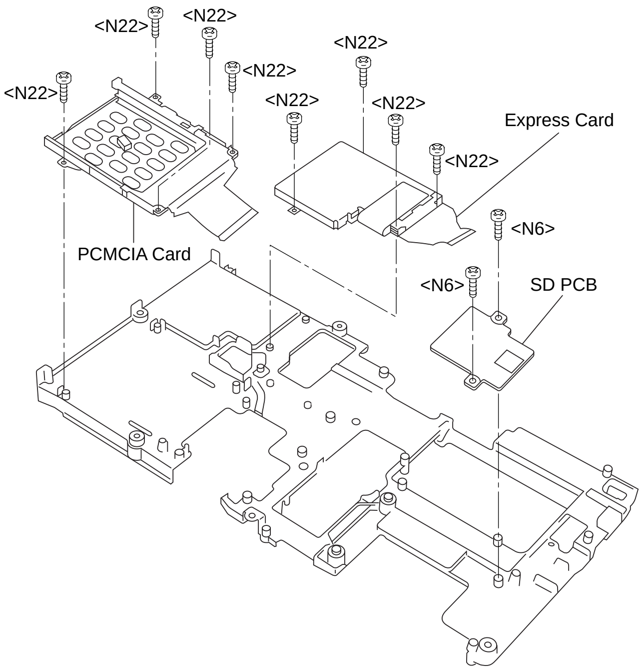
9. Remove the Tape.
10. Disconnect the 2 Cables from the 2 Connectors. (CN400,CN401)
11. Remove the 2 Screws. <N6>
12. Remove the 2 Screws. <N21>
13. Remove the MP Guide.
14. Remove the MP PCB.
15. Remove the Coin Battery Cushion.
16. Disconnect the Cable from the Connector. (CN19)
17. Remove the Coin Battery.
18. Remove the Tape.
19. Disconnect the 2 Cables from the 2 Connectors. (CN4,CN11)



20. Remove the 3 Screws <N17> and the Screw. <N11>
21. Remove the ICH Plate.
22. Remove the 2 Modem Cable Sheets.
23. Remove the 2 Screws. <N6>
24. Remove the Modem LAN Case.
25. Remove the 1394 Sheet.
26. Remove the 2 Screws. <N11>
27. Remove the Tape.
28. Disconnect the Cable from the Connector (J2) and remove the MDC.
29. Remove the Modem Cable.
30. Remove the 8 Screws. <N6>
31. Remove the Screw. <N11>
32. Remove the Main PCB.

Screws <N6>: DRQT26+E4FKL
Screws <N7>: DRSB26+10HKL
Screws <N11>: DFHE5025XA
Screws <N16>: DRQT26+E5FKL
Screws <N17>: DRQT26+E6FKL
Screws <N18>: DRSB26+8FKL
Screws <N21>: DXQT2+E12FNL

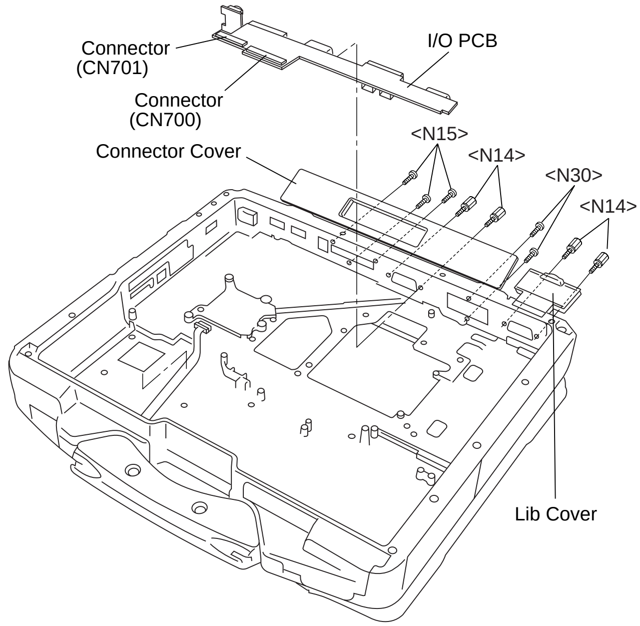
7.1.12. Removing the SD PCB, Express Card and PCMCIA Card



1. Remove the 2 Screws. <N6>
2. Remove the SD PCB.
3. Remove the 4 Screws. <N22>
4. Remove the Express Card.
5. Remove the 4 Screws. <N22>
6. Remove the PCMCIA Card.

Screws <N6>: DRQT26+E4FKL
Screws <N22>: DXQT2+G4FNL

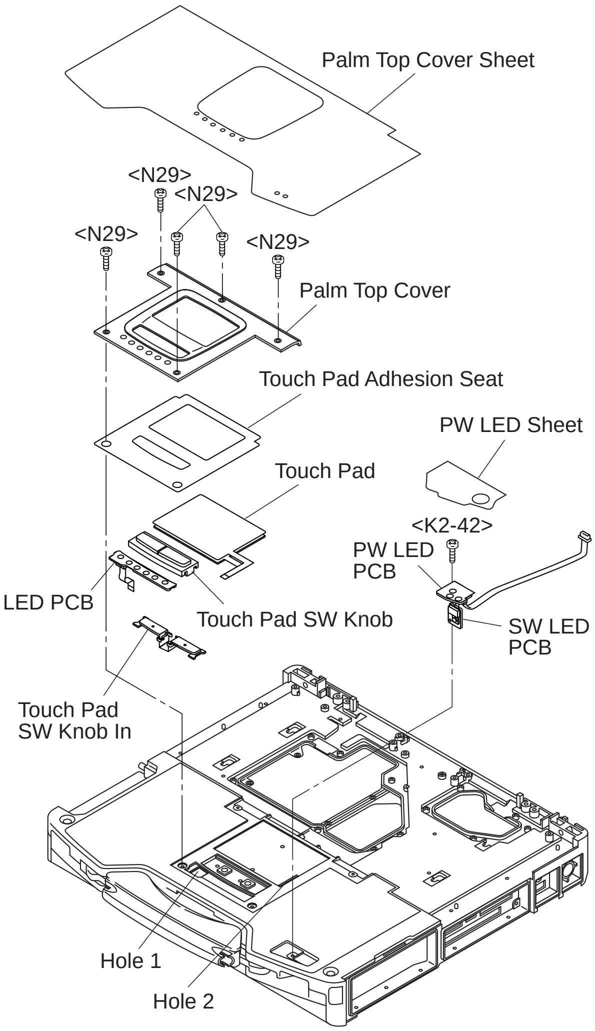
7.1.13. Removing the I/O PCB



1. Open the Connector Cover and Lid Cover.
2. Remove the 3 Screws <N14> and the 2 Screws <N30>.
3. Remove the 4 Screws. <N15>
4. Remove the I/O PCB.

Screws <N14>: DFHE5058ZB
Screws <N15>: DRHM5104ZA
Screws <N30>: DXHM0057ZA

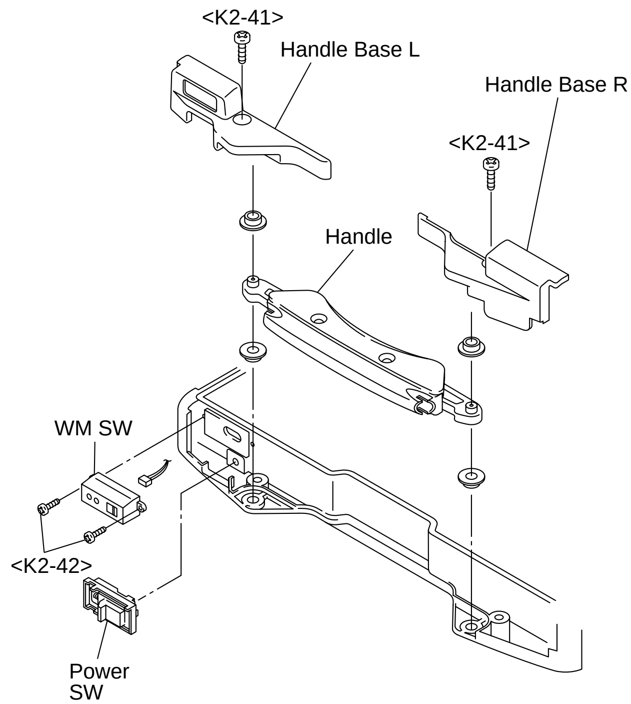
7.1.14. Removing the Palm Top Cover Sheet, Palm Top Cover, Touch Pad Adhesion Seat, Touch Pad, Touch Pad SW Knob, LED PCB and SW LED PCB



1. Remove the Palm Top Cover sheet.
2. Remove the 5 Screws <N29>, and remove the Palm Top Cover.
3. Remove the Touch Pad Adhesion seat.
4. Remove the Touch Pad.
5. Remove the Touch Pad SW knob and Touch Pad SW Knob in.
6. Remove the LED PCB.
7. Remove the PW LED Sheet.
8. Remove the Screw <K2-42>, and remove the SW LCD PCB.

Screws <N29>: DRQT26+E3FNL
Screws <K2-42>: DXQT26+D4NLT

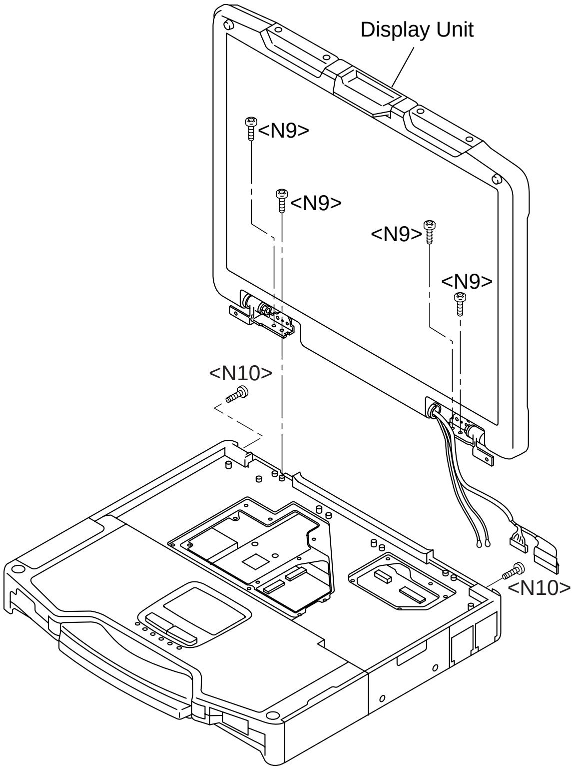
7.1.15. Removing the Handle and Power SW



1. Remove the 2 Screws <K2-41>, and remove the Handle Base L and R.
2. Remove the Handle.
3. Remove the 2 Screws. <K2-42>
4. Remove the WM SW and Power SW.

Screws <K2-41>: DRSN4+6FKLT
Screws <K2-42>: DXQT26+D4NLT

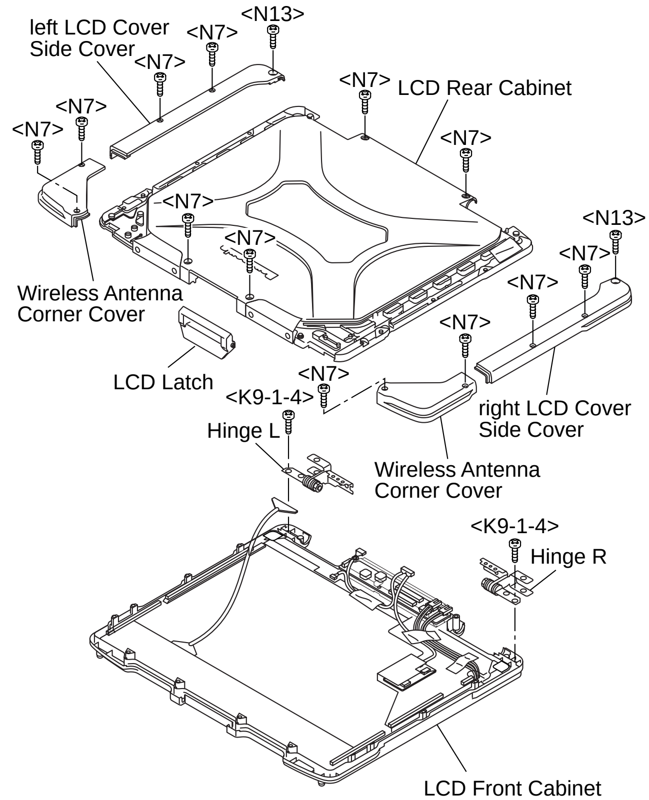
7.1.16. Removing the Display Unit



1. Remove the 2 Screws <N10> and the 4 Screws <N9>.
2. Remove the Display Unit.

Screws <N9>: DRYN4+J10FKL
Screws <N10>: DXSB4+15FNLB

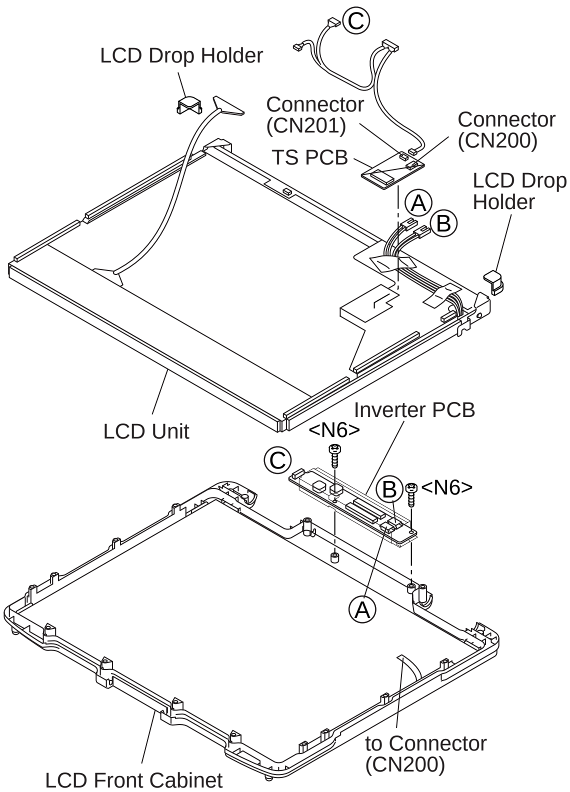
7.1.17. Removing the LCD Rear Cabinet, Hinge L and R



1. Remove the 4 Screws. <N7>
2. Remove the 2 Wireless Antenna Corner Covers.
3. Remove the 4 Screws <N7> and 2 Screws. <N13>
4. Remove the left and right LCD Cover Side Covers.
5. Remove the 4 Screws. <N7>
6. Remove the LCD Rear Cabinet.
7. Remove the LCD Latch.
8. Remove the 2 Screws. <K9-1-4>
9. Remove the Hinge L and R.

Screws <N2>: DRHM5054XA
Screws <N7>: DRSB26+10HKL
Screws <N13>: DRSB4+10FKL
Screws <K9-1-4>: DRYN4+J10KLT

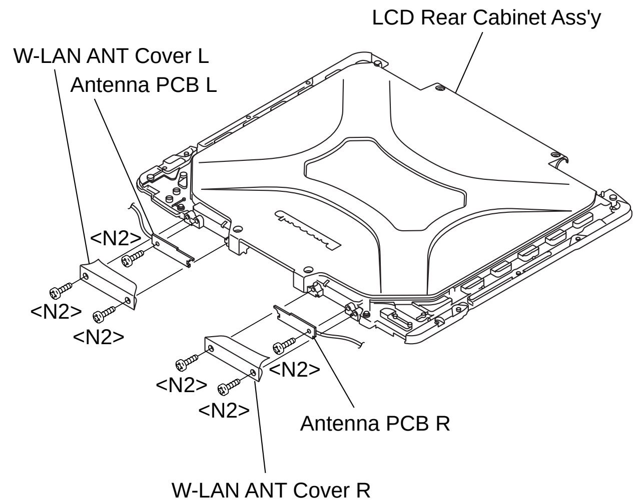
7.1.18. Removing the Inverter PCB, TS PCB and LCD Unit



1. Remove the 2 Screws. <N6>
2. Disconnect the 3 Cables from the 3 Connectors.
3. Remove the Inverter.
4. Disconnect the 2 Cables from the 2 Connectors. (CN200,CN201)
5. Remove the TS PCB.
6. Remove the 2 Drop Holders.
7. Remove the LCD Unit.

Screws <N6>: DRQT26+E4FKL

7.1.19. Removing the Antenna PCB L and R



1. Remove the 4 Screws <N2>.
2. Remove the W-LAN ANT Cover L and R.
3. Remove the 2 Screws. <N2>
4. Remove the Antenna PCB L and R.

Screws <N2>: DRHM5054XA

7.2. Reassembly Instructions

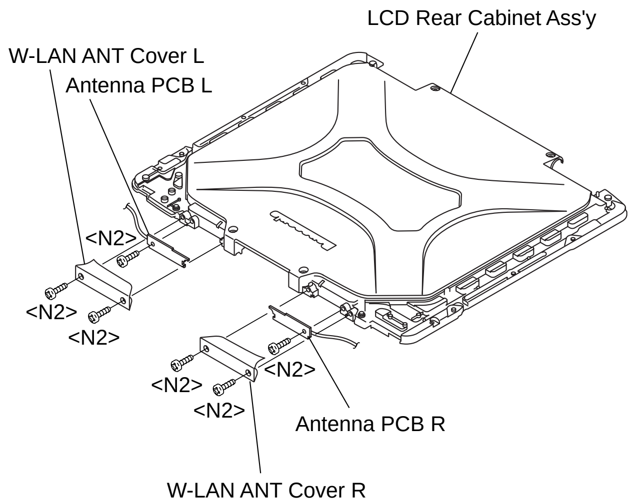
7.2.1. Attention when CF-30 series is repaired

- Please execute writing BIOS ID when you exchange the Main Board.
- Parts (Sheet and rubber) etc. related various the Conductive Cloth and Heat Spreader cannot be recycled. Use new parts.

7.2.2. Setting the Antenna PCB L and R

1. Set the Antenna PCB L and R using the 2 Screws. <N2>
2. Fix the W-LAN ANT Cover L and R using the 4 Screws. <N2>

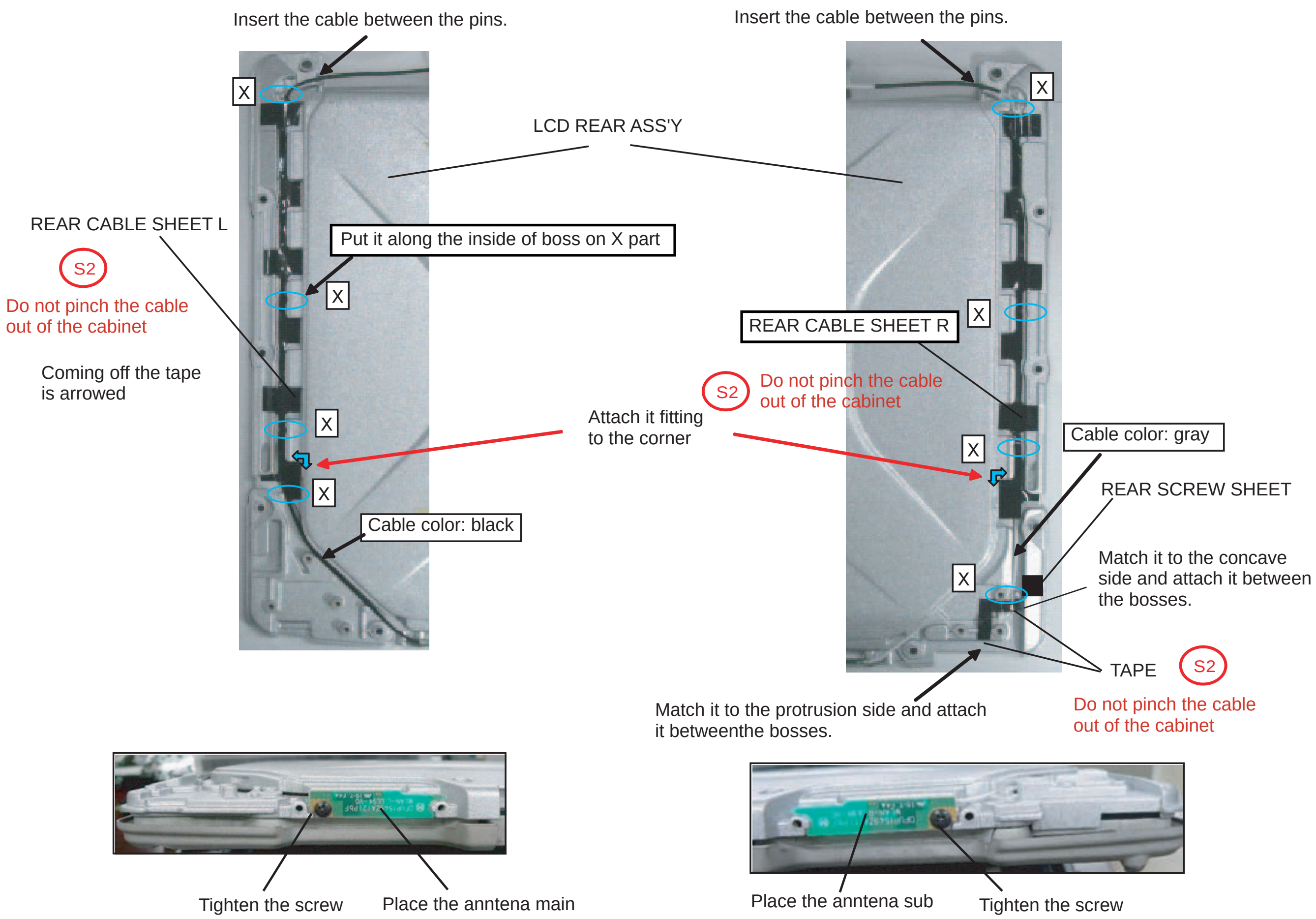
Screws <N2>: DRHM5054XA



■ Arranging the Antenna L and R Cables

Safety Working

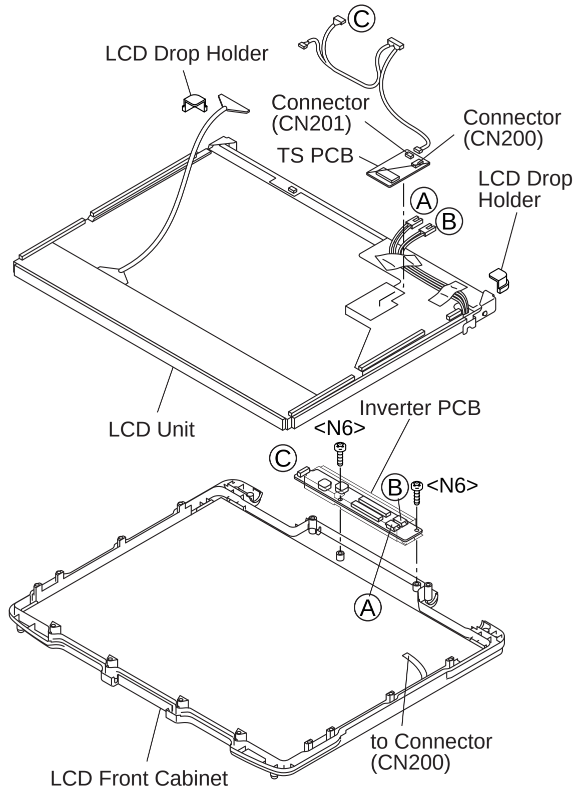
CAUTION	S1:Insulation S2:Pinching Cables S3:Sharp Edge S4:Part No. Check S5:Others



7.2.3. Setting the Inverter PCB, TS PCB and LCD Unit

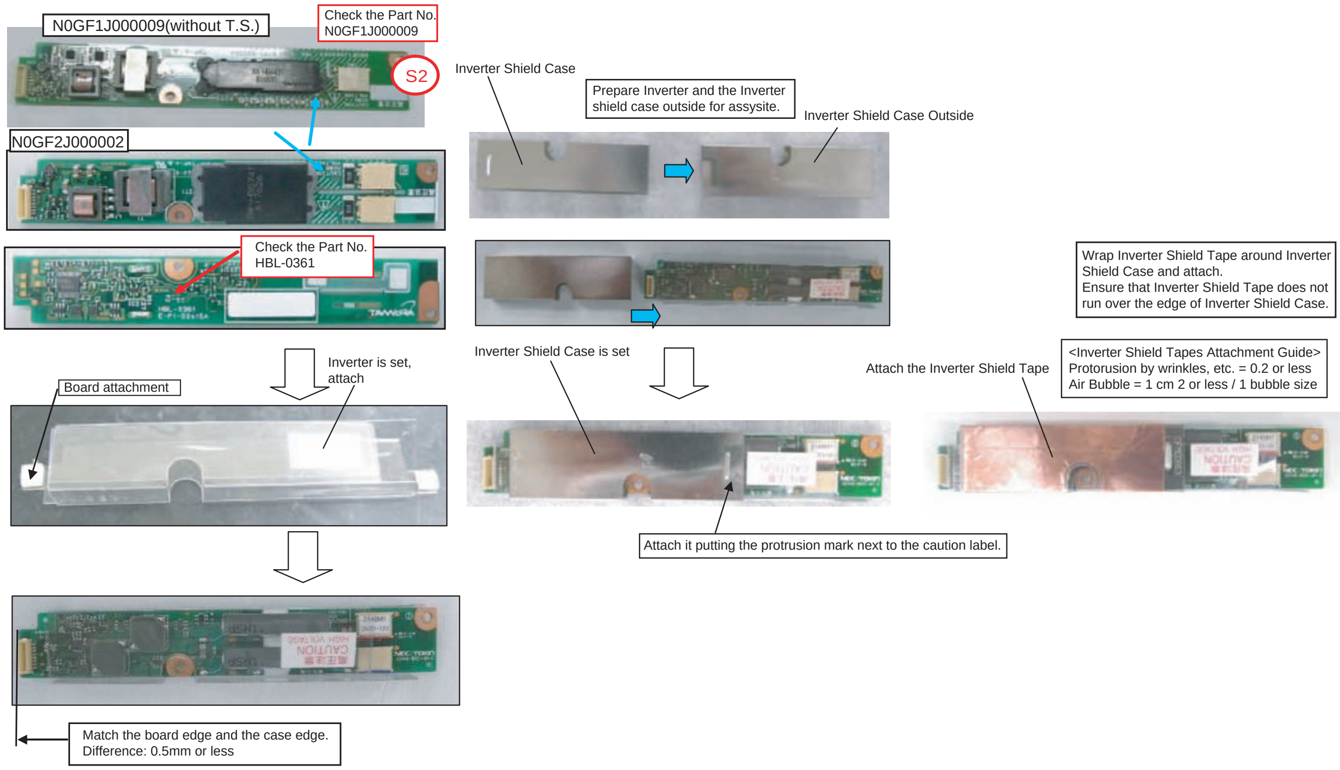
1. Set the LCD Unit to the LCD Front Cabinet in order.
2. Attach the 2 drop holders.
3. Connect the Cable to the Connector. (CN200,CN201)
4. Connect the 3 Cables to the 3 Connectors.
5. Fix the Inverter PCB using the 2 Screws. <N6>

Screws <N6>: DRQT26+E4FKL



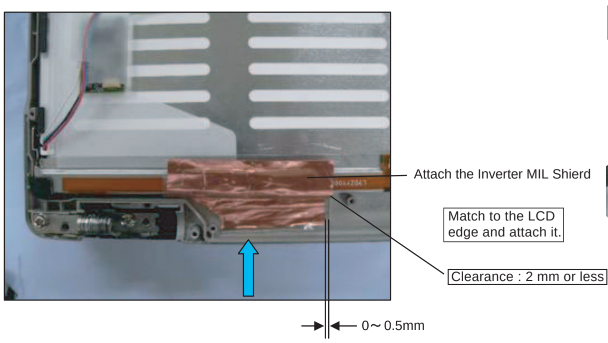
■ Preparation of Inverter

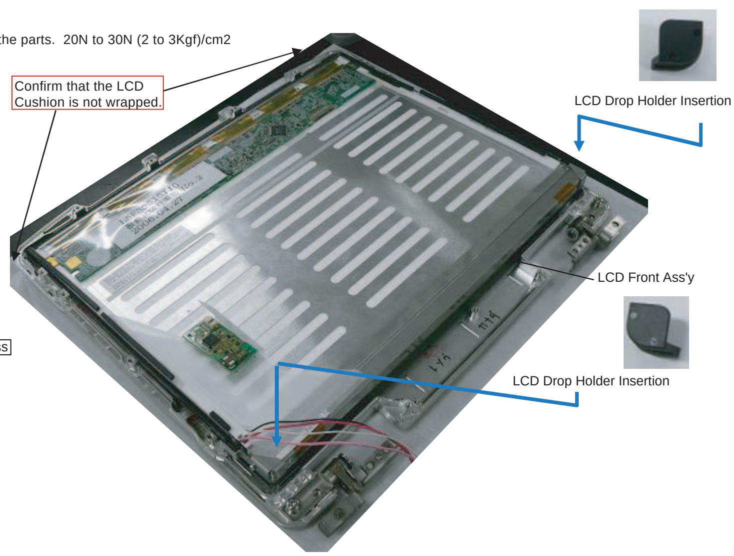
* Notes:
1. Apply the load when attaching the parts.   20N to 30N (2 to 3Kgf)/cm2
2. When handling Inverter-PCB, do not bend or add impact.



■ Assembly of LCD Unit

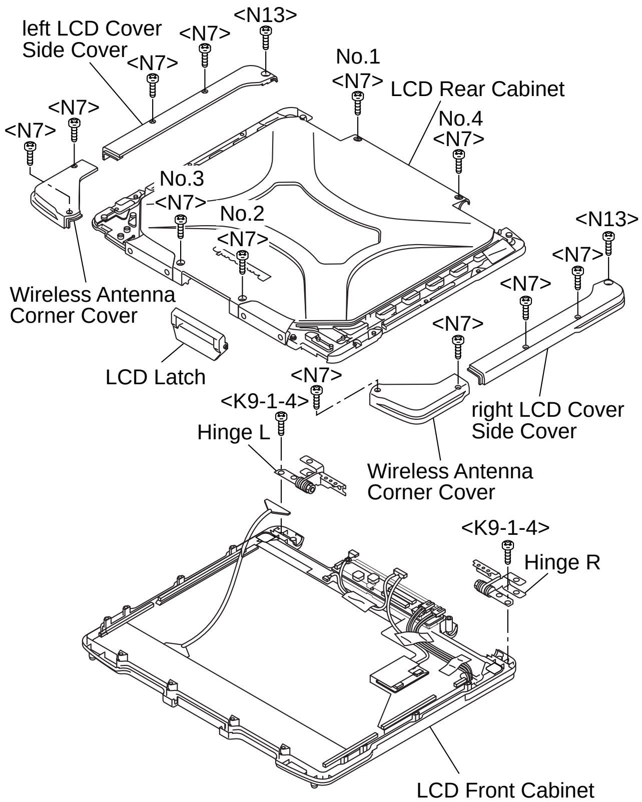
* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2





7.2.4. Setting the LCD Rear Cabinet, Hinge L and R

1. Fix the Hinge L and R using the 2 Screws. <K9-1-4>
2. Set the LCD Latch.
3. Fix the LCD Rear Cabinet using the 4 Screws. <N7> No1 to No4
4. Fix the left and right LCD Cover Side Cover using the 4 Screws <N7> and 2 Screws. <N13>
5. Fix the 2 Wireless Antenna Corner Cover using the 4 Screws. <N7>



Note:

Tighten the Screws in the numbered order (No1 to No4).

Screws <N2>: DRHM5054XA
Screws <N7>: DRSB26+10HKL
Screws <N13>: DRSB4+10FKL
Screws <K9-1-4>: DRYN4+J10KLT

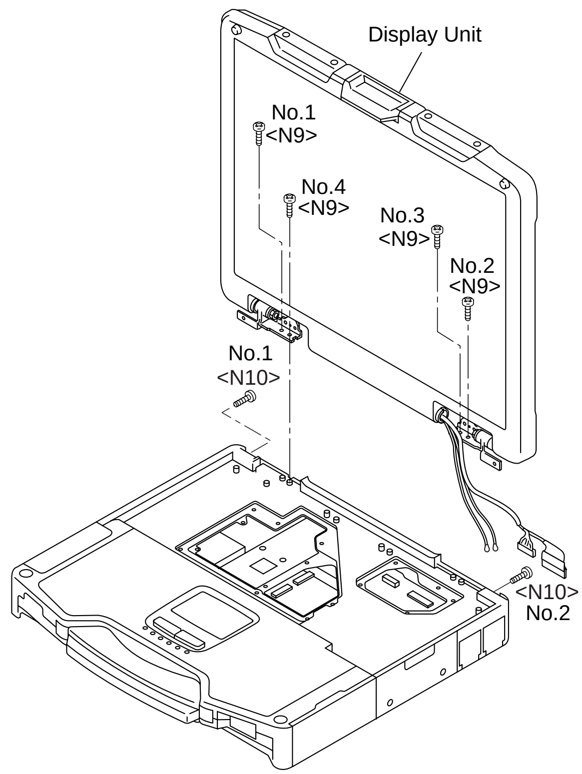
7.2.5. Setting the Display Unit

1. Fix the Display Unit using the 4 Screws. <N9> No1 to No4
2. Fix the Display Unit using the 2 Screws. <N10> No1, No2

Note:

Tighten the Screws in the numbered order (No1 to No2).
Tighten the Screws in the numbered order (No1 to No4).

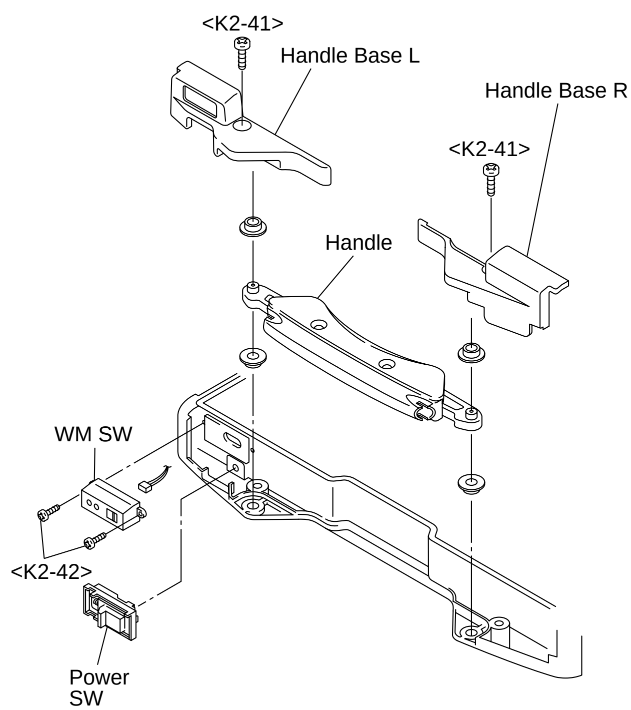
Screws <N9>: DRYN4+J10FKL
Screws <N10>: DXSB4+15FNLB



7.2.6. Setting the Handle and Power SW

1. Set the WM SW using the 2 Screws. <K2-42>
2. Set the Power SW.
3. Set the Handle.
4. Fix the Handle Base L and R using the 2 Screws. <K2-41>
5.

Screws <K2-41>: DRSN4+6FKLT
Screws <K2-42>: DXQT26+D4NLT



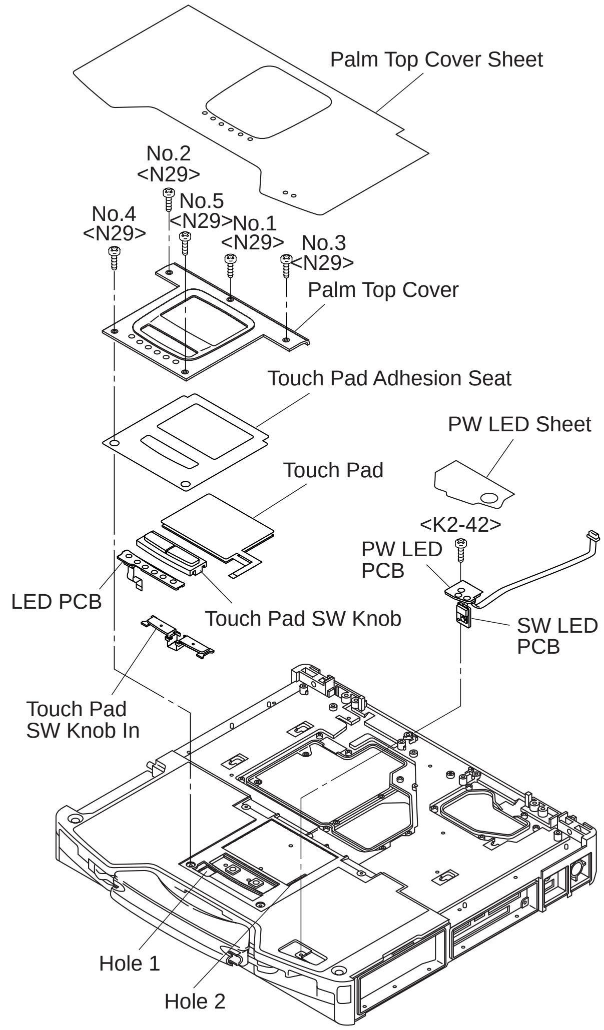
7.2.7. Setting the Palm Top Cover Sheet, Palm Top Cover, Touch Pad Adhesion Seat, Touch Pad SW Knob, LED PCB And SW LED PCB

1. Set the SW LED PCB.
2. Attach the Power LED Packing Sheet to the LED Spacer Sheet.
3. Attach the LEDX6 Spacer Sheet on the SW LED PCB.
4. Fix the SW LED PCB using the Screw. <K2-42>
5. Attach the PW LED Sheet.
6. Pass the Cable of LED PCB through the hole 1 on the Top Cabinet, then set the LED PCB.
7. Attach the LES Spacer Sheet on the LED PCB.
8. Set the touch Pad SW Knob In and Touch Pad SW Knob
9. Attach the TP Bottom Tape to the Touch Pad.
10. Pass the Cables of the Touch Pad through the hole 2 on the Top Cabinet, set the touch Pad.
11. Attach the Touch Pad Adhesion Seat.
12. Fix the Palm Top Cover using the 5 Screws. <N29> No1 to No5
13. Attach the Palm Top Cover Sheet.

Note:

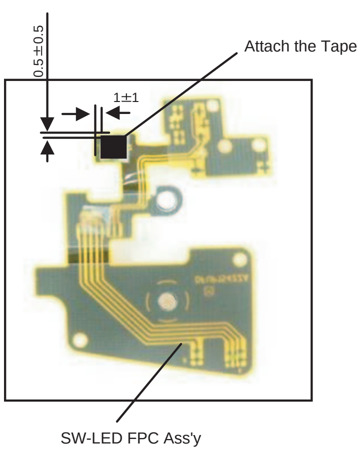
Tighten the Screws in the numbered order (No1 to No5).

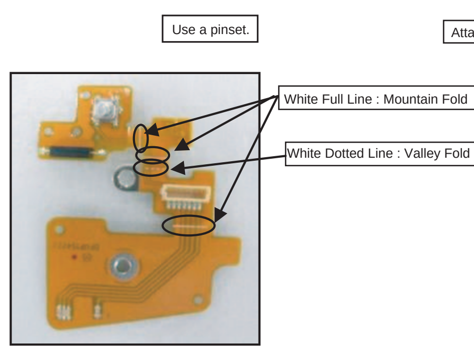
Screws <K2-42>: DRQT26+D4NLT
Screws <N29>: DRQT26+E3FNL

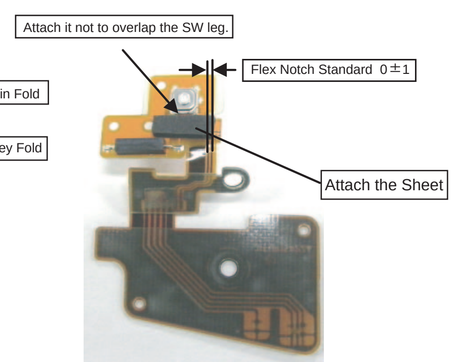


■ Preparation of SW LED FPC

* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2



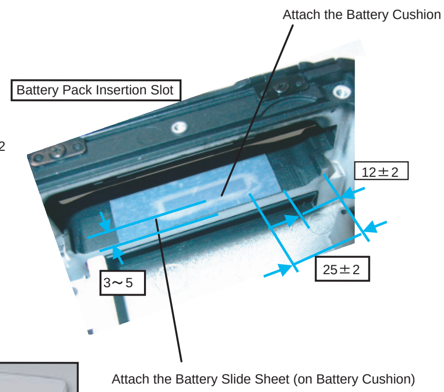


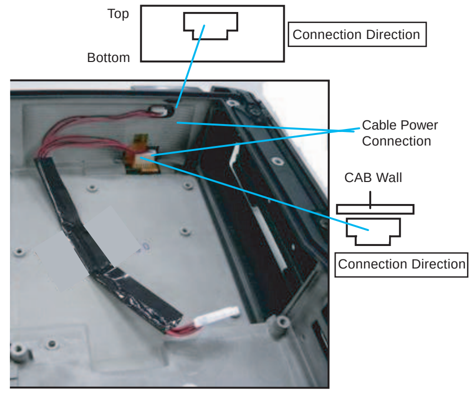


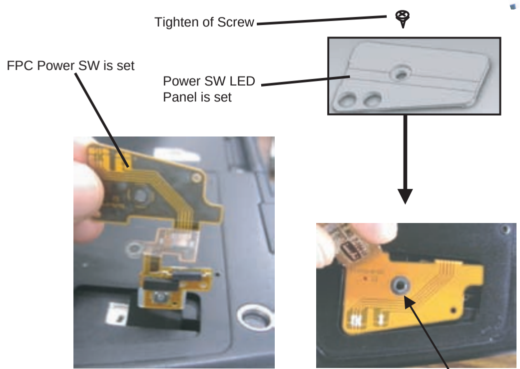
■ Assembly of Power SW

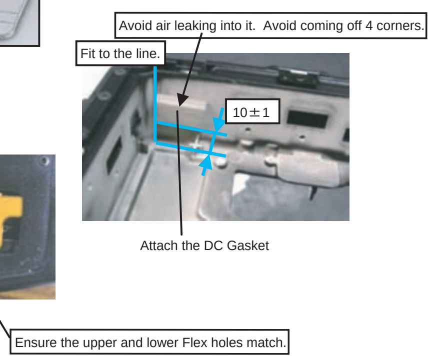
* Notes:

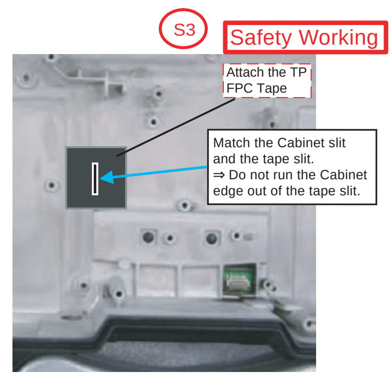
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2





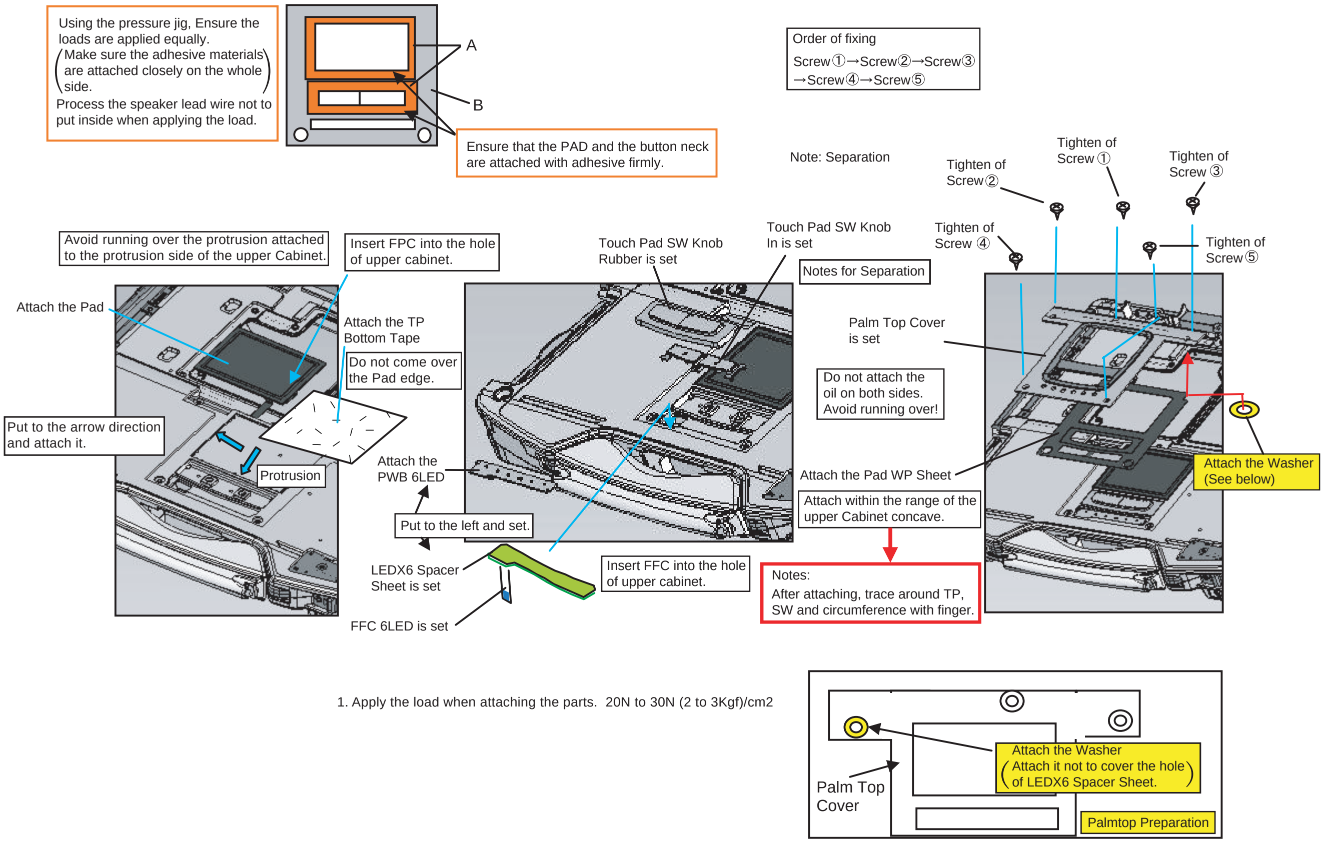






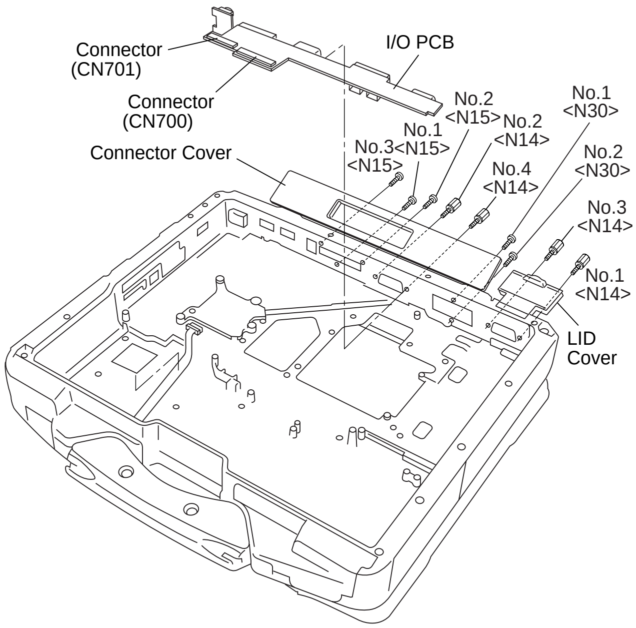
CAUTION	S1:Insulation S2:Pinching Cables S3:Sharp Edge S4:Part No. Check S5:Others

■ Assembly of Palm Top Cover



7.2.8. Setting the I/O PCB

1. Open the Connector Cover and Lid Cover.
2. Fix the I/O PCB using the 3 Screws. <N15> No1 to No3
3. Fix the I/O PCB using the 4 Screws. <N14> No1 to No4
4. Fix the I/O PCB using the 2 Screws. <N30> No1, No2



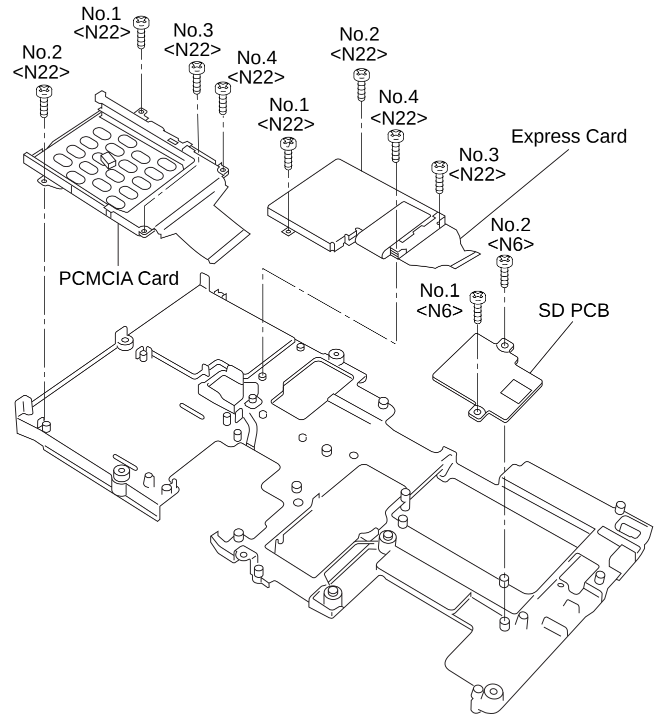
Note:

Tighten the Screws in the numbered order (No1 to No4).

Screws <N14>: DFHE5058ZB
Screws <N15>; DRHM5104ZA
Screws <N30>; DXHM0057ZA

7.2.9. Setting the SD PCB, Express Card and PCMCIA Card

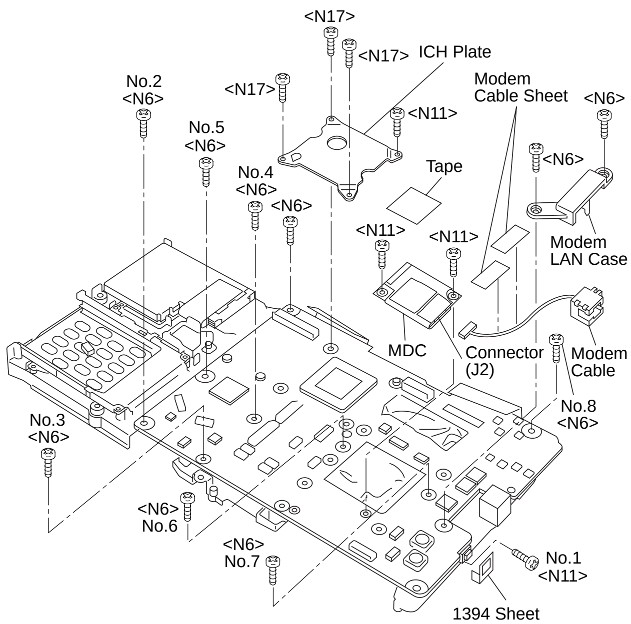
1. Fix the PCMCIA Card using the 4 Screws. <N22>
2. Fix the Express Card using the 4 Screws. <N22>
3. Fix the SD PCB using the 2 Screws. <N5>



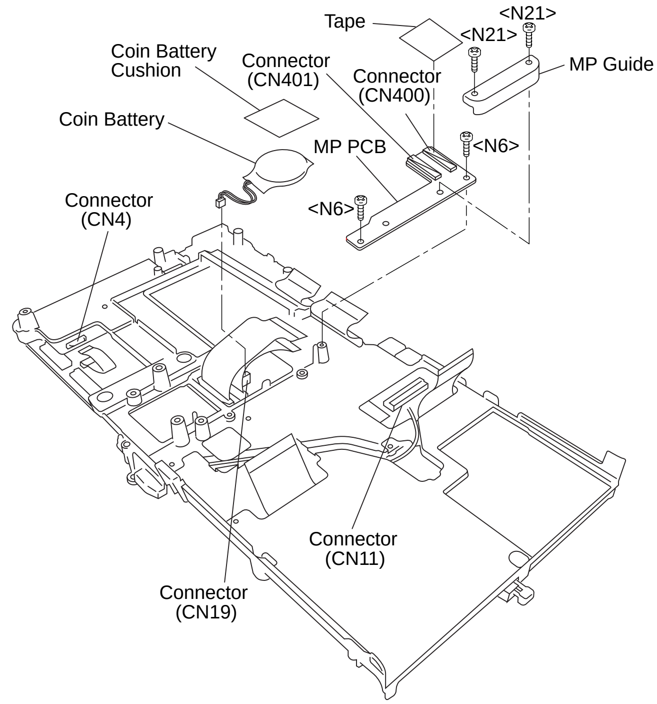
Screws <N6>: DRQT26+E4FKL
Screws <N22>: DXQT2+G4FNL

7.2.10. Setting the Main PCB

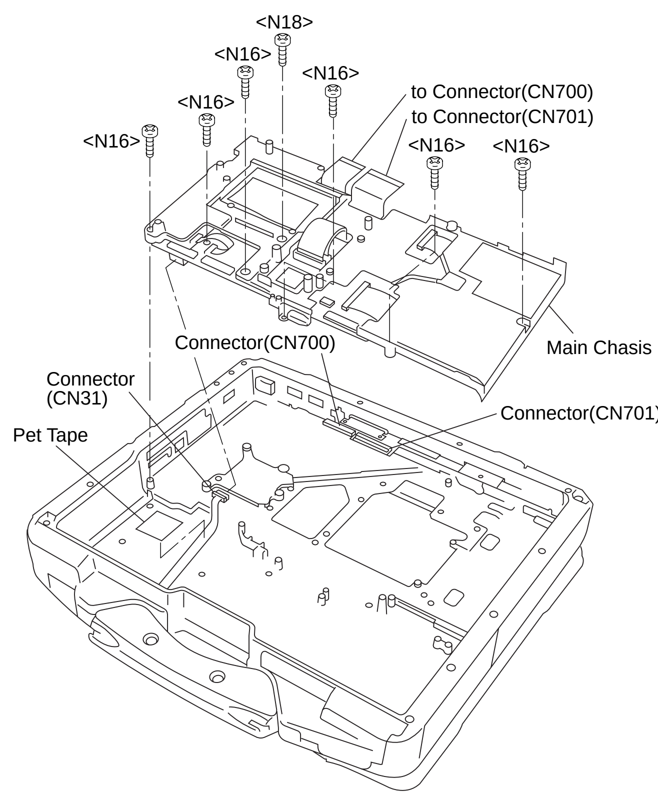
1. Fix the Main PCB using the 8 Screws <N6> and Screw. <N11> No1 to No8.
2. Set the Modem Cable.
3. Connect the Cable to the Connector (J2) and fix the MDC.
4. Attach the Tape.
5. Attach the 1394 Sheet.
6. Fix the MDC using the 2 Screws. <N11>
7. Fix the Modem LAN Case using the 2 Screws. <N6>
8. Attach the 2 Modem Cable Sheets.
9. Fix the ICH Plate using the 3 Screws <N17> and Screw <N11>.



10. Connect the Cable to the Connector (CN4,CN11)
11. Attach the Tape.
12. Attach the Coin Battery.
13. Connect the Cable to the Connector. (CN19)
14. Attach the Coin Battery Cushion.
15. Fix the MP PCB and MP Guide using the 2 Screws <N6> and 2 Screws. <N21>
16. Connect the Cable to the Connector. (CN400,CN401)
17. Attach the Tape.

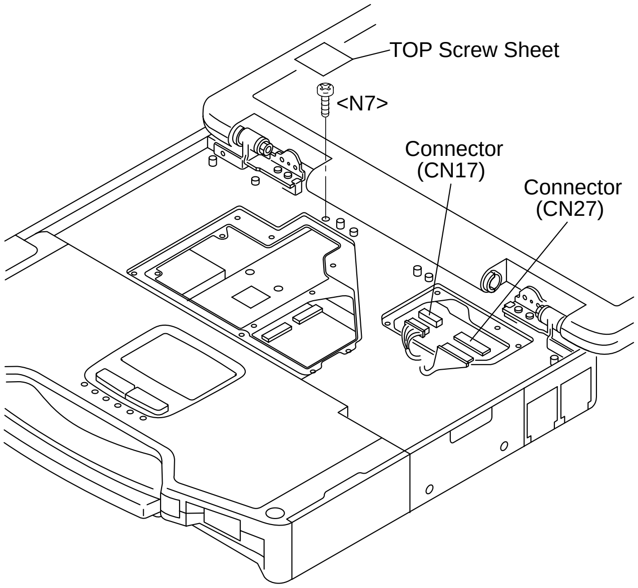


18. Set the Main Chasis on the Computer.
19. Connect the Cable to the Connector (CN31) and Attach the Pet Tape.
20. Connect the Cable to the Connector. (CN700,CN701)
21. Fix the Main Chasis using the 6 Screws <N16> No1 to No6
22. Fix the Main Chasis using the Screw. <N18>



23. Connect the 2 Cables to the 2 Connectors. (CN17,CN27)

24. Fix the Screw. <N7>
25. Attach the TOP Screws.



Note:

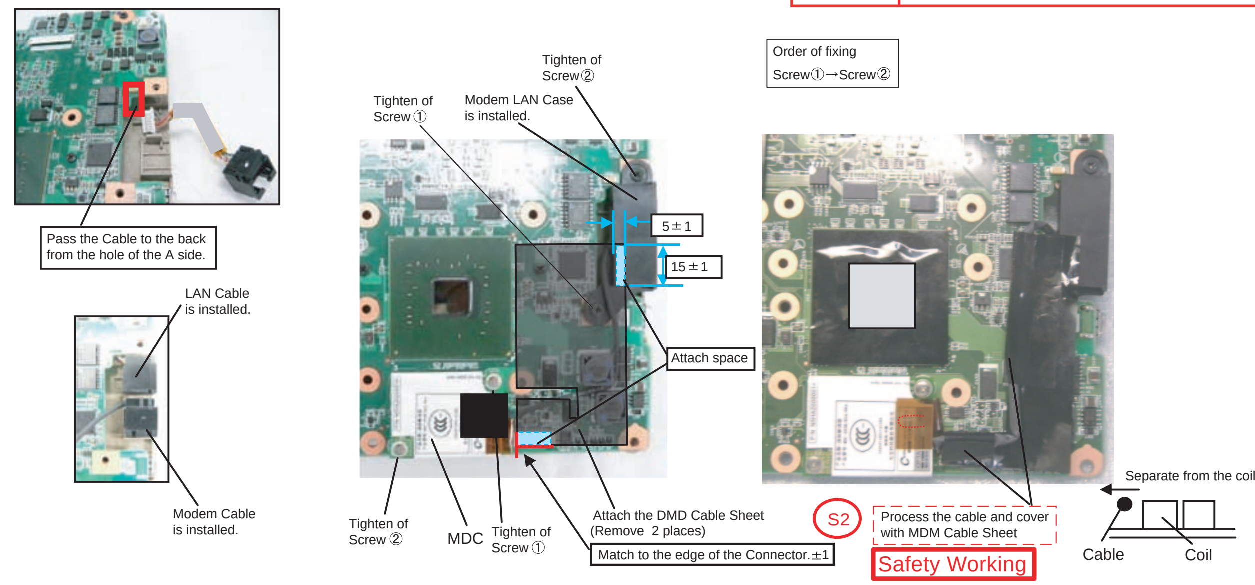
Tighten the Screws in the numbered order (No1 to No8).
Tighten the Screws in the numbered order (No1 to No6).

Screws <N6>: DRQT26+E4FKL
Screws <N7>: DRSB26+10HKL
Screws <N11>: DFHE5025XA
Screws <N16>: DRQT26+E5FKL
Screws <N17>: DRQT26+E6FKL
Screws <N18>: DRSB26+8FKL
Screws <N21>: DXQT2+E12FNL

■ Assembly of LAN, Modem and MDC

* Notes:
1. Apply the load when attaching the parts.   20N to 30N (2 to 3Kgf)/cm2

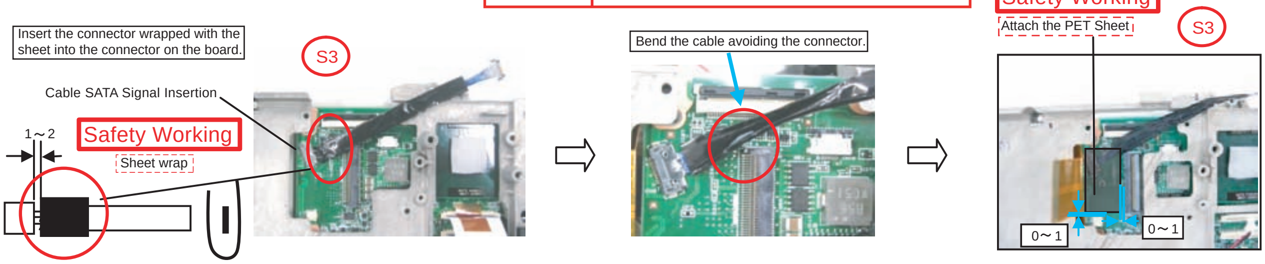
CAUTION	S1:Insulation S2:Pinching Cables S3:Sharp Edge S4:Part No. Check S5:Others

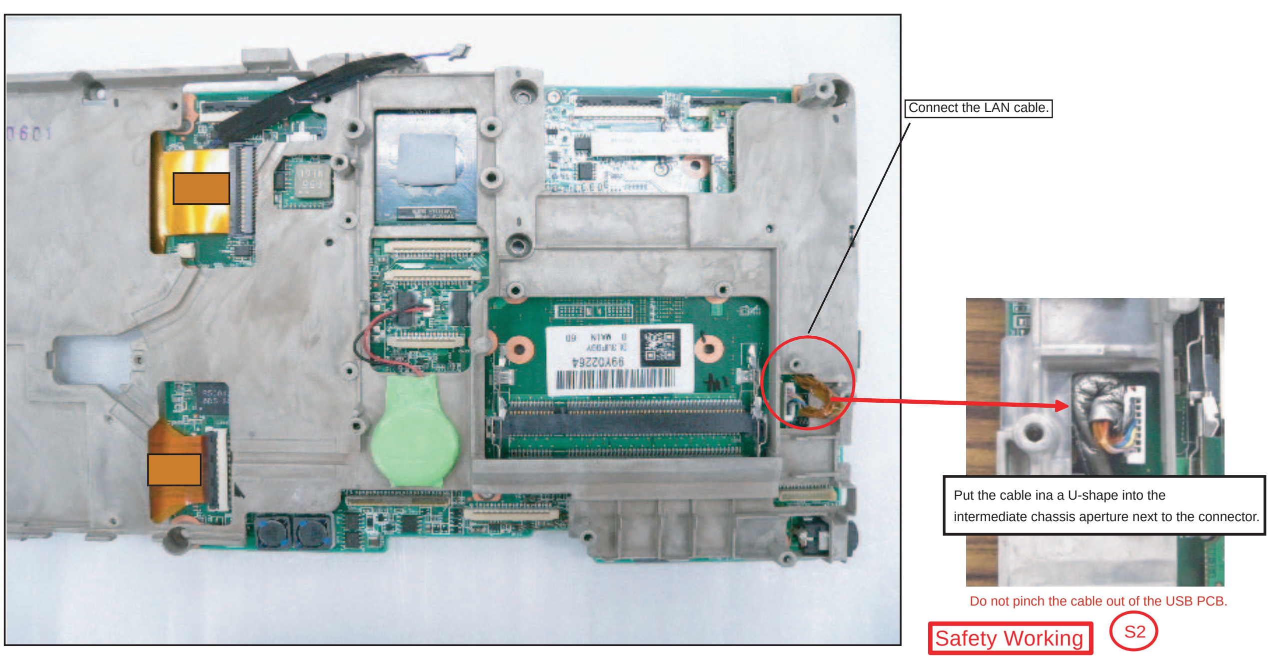


■ Assembly of Main PCB

* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

CAUTION	S1:Insulation S2:Pinching Cables S3:Sharp Edge S4:Part No. Check S5:Others

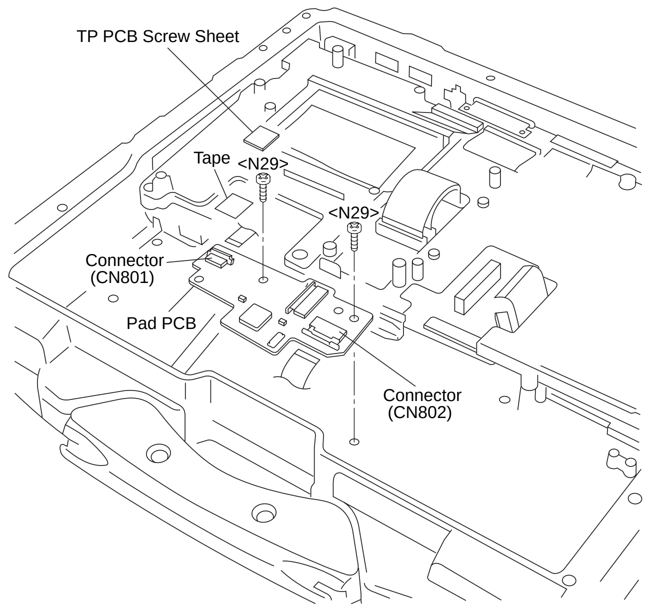




7.2.11. Setting the PAD PCB

1. Fix the PAD PCB using the 2 Screws. <N29>
2. Attach the TP PCB Screw Sheet.
3. Connect the Cable to the Connector. (CN802)
4. Connect the Cable to the Connector (CN801) and attach the Tape.

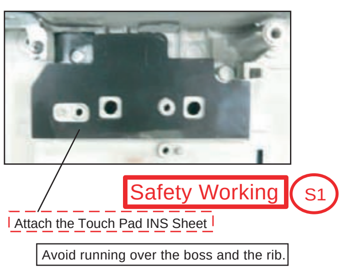
Screws <N29>: DRQT26+E3FNL

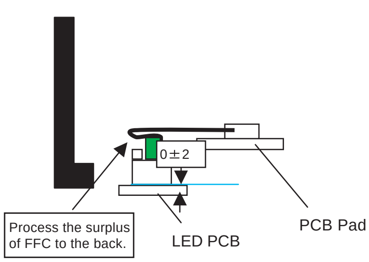


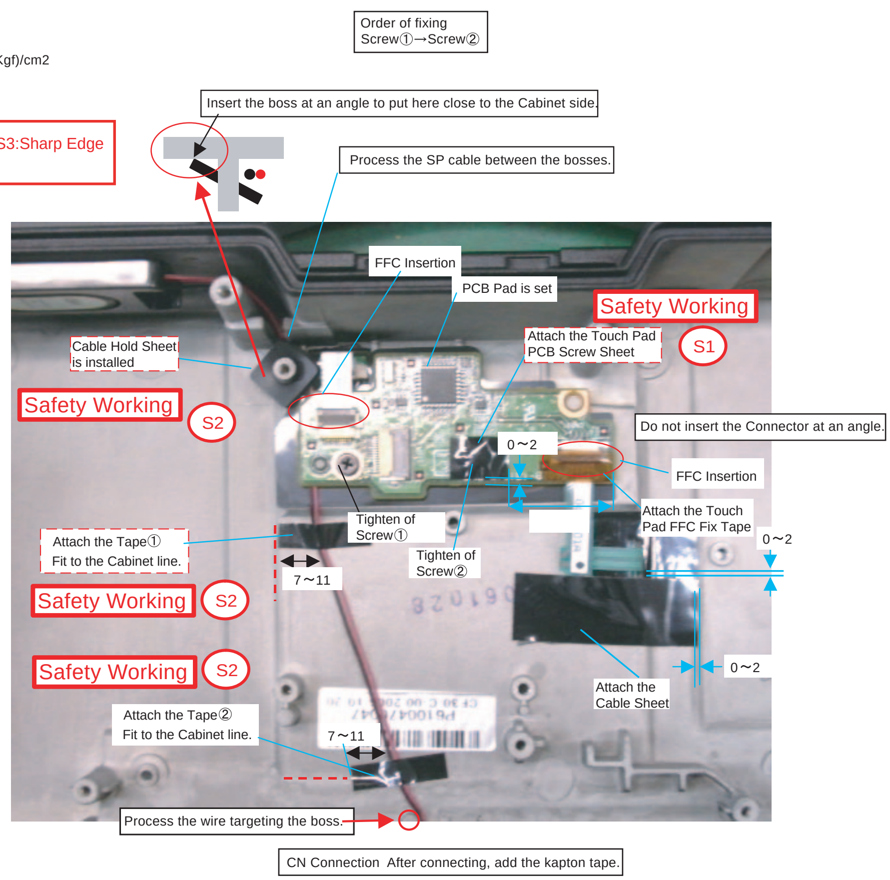
■ Assembly of PAD PCB

* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

CAUTION	S1:Insulation S2:Pinching Cables S3:Sharp Edge S4:Part No. Check S5:Others

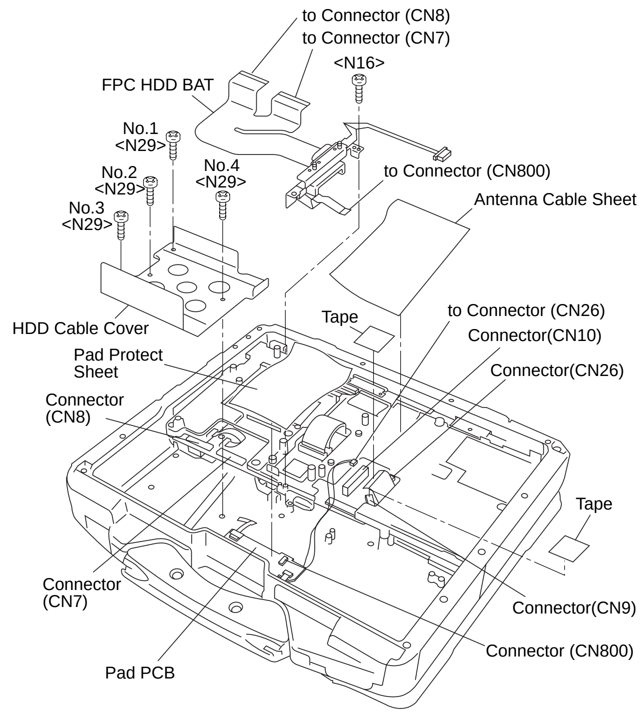






7.2.12. Setting the FPC HDD BAT

1. Fix the FPC HDD BAT using the Screw. <N16>
2. Connect the 2 Cables to the 2 Connectors. (CN7,CN8)
3. Connect the Cable to the Connector. (CN800)
4. Attach the PAD Protect Sheet.
5. Connect the Cable to the Connector. (CN9)
6. Attach the Tape.
7. Connect the 2 Cables to the 2 Connectors. (CN10,CN26)
8. Attach the Tape.
9. Attach the Antenna Cable Sheet on the Main PCB.
10. Fix the HDD FPC BAT using the 4 Screws. <N29> No1 to No4

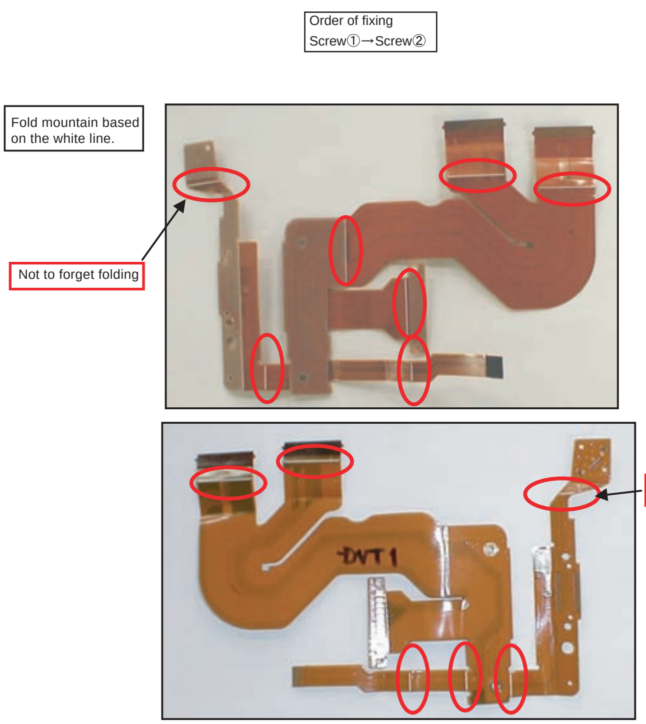


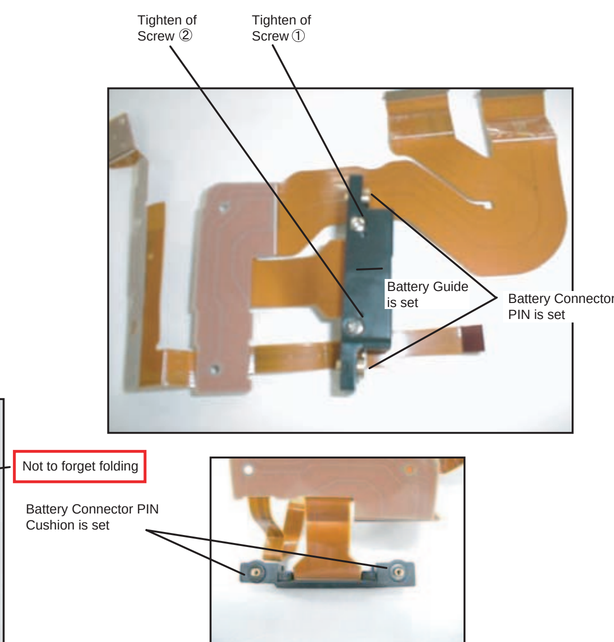
Note:

Tighten the Screws in the numbered order (No1 to No4).

Screw <N16>: DRQT26+E5FKL
Screw <N29>: DRQT26+E3FNL

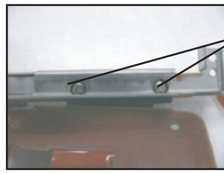
■ Preparation of HDD FPC ASSY





1. Set HDD Guide and fix with Screw.
2. Fix with Screw.
3. Apply tetra coating to each connector pin.

Direction A View

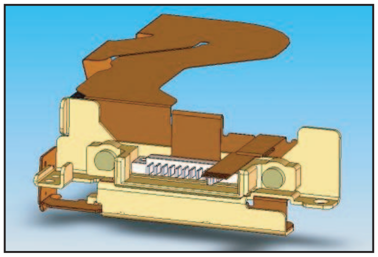


Tighten of Screw

FPC HDD Battery is set

Do not Fold. (R1～4)

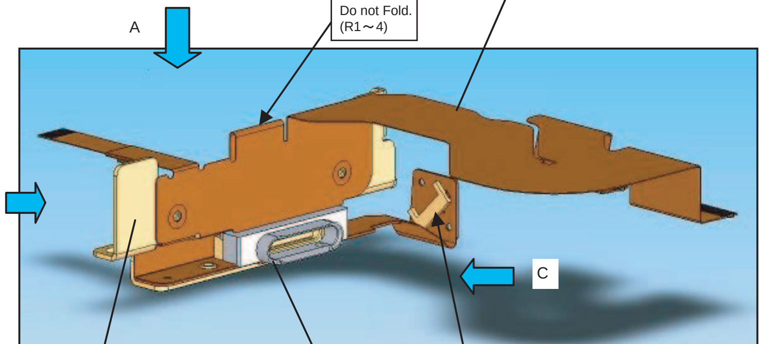
Direction B View



A

B

C

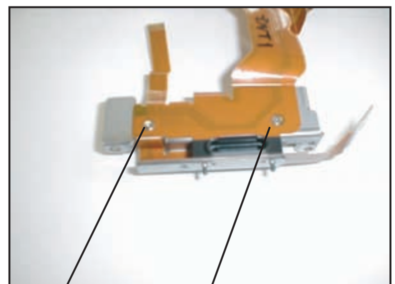


Battery HDD Connector Angle is set

HDD Guide is set

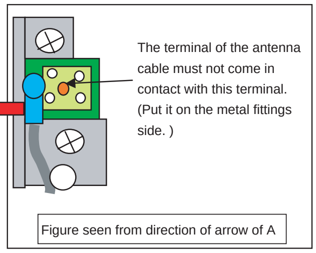
This Connector does not need tetra coating.

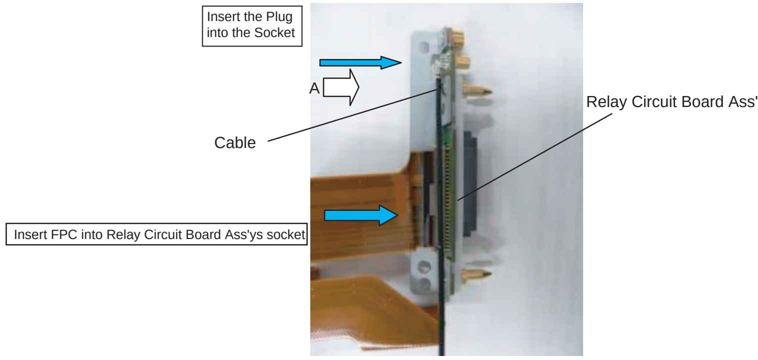
Direction C View

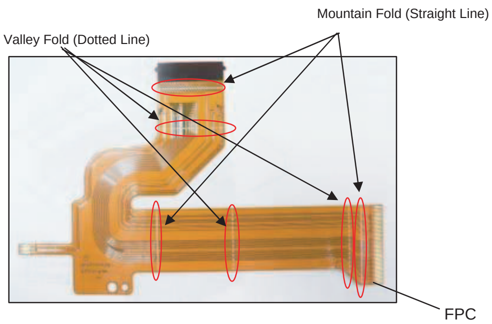


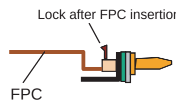
Tighten of Screw①

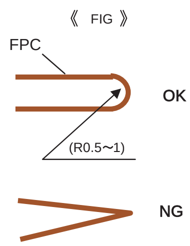
Tighten of Screw②









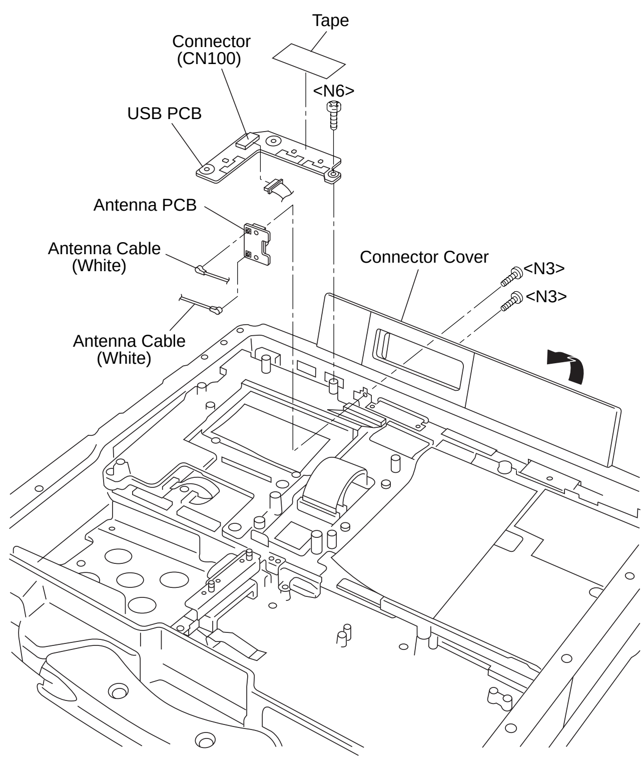


《The attention of folding》: Breakage countermeasure.
1,The bending inside is R0.5~1
2,Don't mistake a bending direction.
Don't use a mistaken thing.

7.2.13. Setting the USB PCB and Antenna PCB

1. Open the Connector Cover.
2. Fix the Antenna PCB using the 2 Screws. <N3>
3. Connect the 2 white Cables.
4. Fix the USB PCB using the Screws. <N6>
5. Connect the Cable to the Connector. (CN100)
6. Attach the Tape.

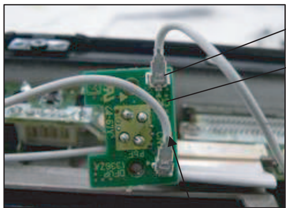
Screws <N3>: DRQT2+G6FKL
Screws <N6>: DRQT26+E4FKL



■ Assembly of USB PCB

* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

Order of fixing
Screw①→Screw②

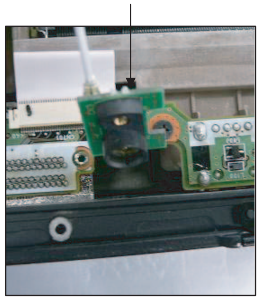


W-LAN Cable Connection

EXT Antenna PCB is set

Connect the coaxial cable from LCD.

Set on the top.



Tighten of Screw ①



Tighten of Screw ②

S2 Safety Working

Attach the Tape

S2 Safety Working

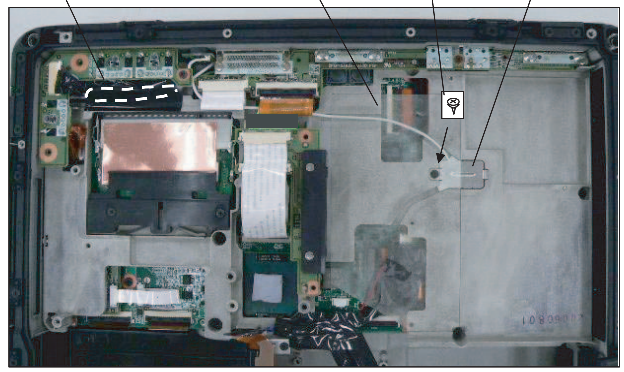
Attach the Antenna Cable Sheet

Process the cable from LCD.

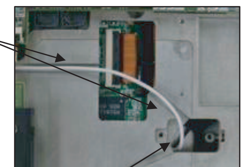
Fit to the groove.
Difference : 1 or less

Tighten of Screw

Antenna Cable Plate is set



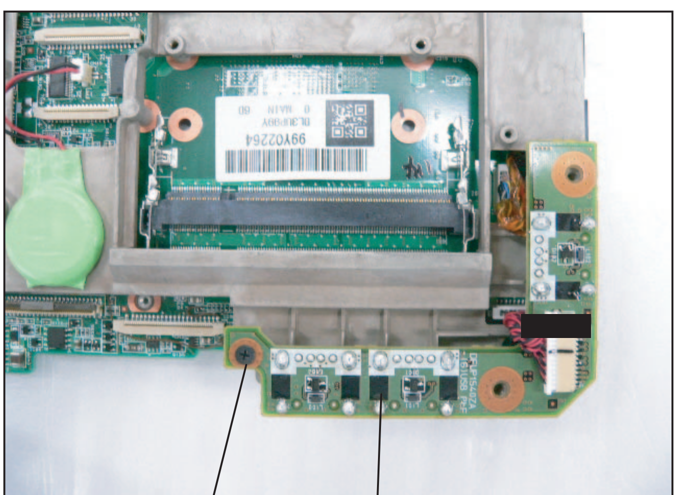
Along the groove



Pull W-LAN Cable out to the surface from the hole.

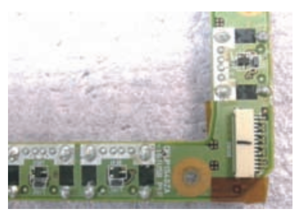
CAUTION	S1:Insulation S2:Pinching Cables S3:Sharp Edge S4:Part No. Check S5:Others

* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

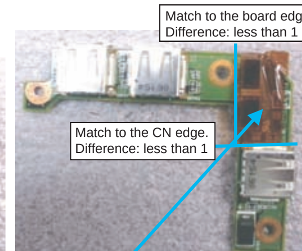


Tighten of Screw

PCB USB Sub is set



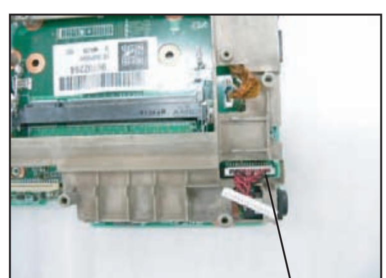
Match to the board edge.
Difference: less than 1



Match to the CN edge.
Difference: less than 1

Attach the kapton tape into CD Edge Sheet.

S1 Safety Working



Cable USB is set

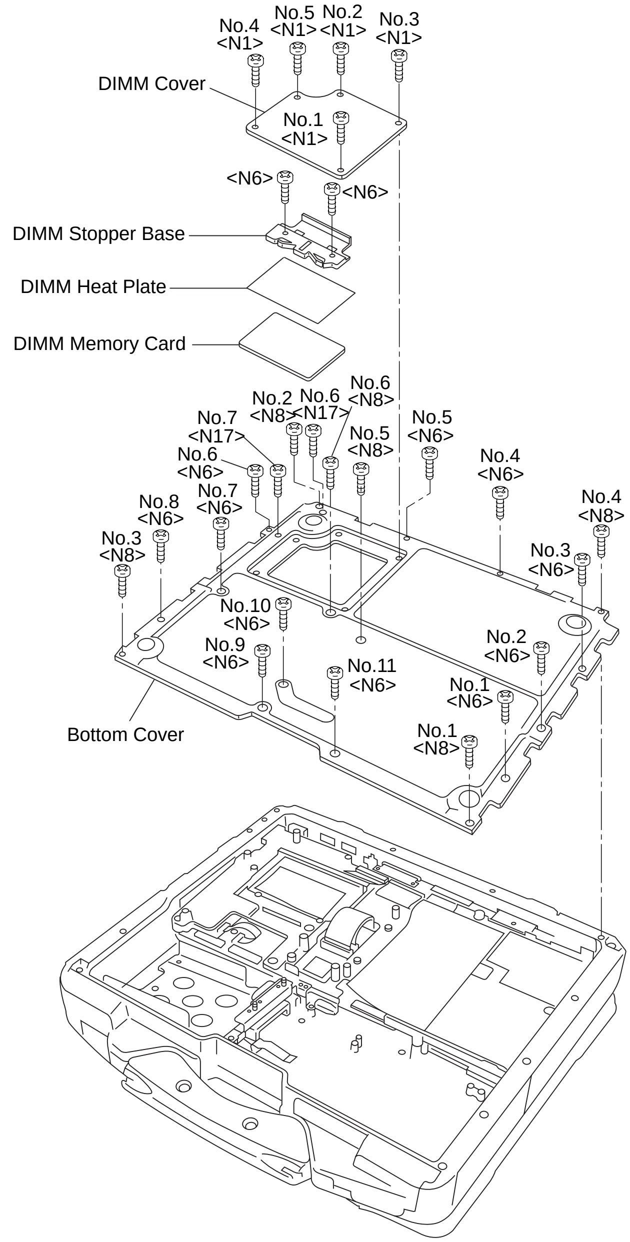
7.2.14. Setting the DIMM Cover and Bottom Cover

1. Set the Bottom Cover.
2. Fix the Bottom Cover using the 6 Screws. <N8> No1 to No6
3. Fix the Bottom Cover using the 11 Screws. <N6> No1 to No11
4. Fix the Bottom Cover using the 2 Screws. <N17> No1, No2
5. Set the DIMM memory card.
6. Attach the DIMM Heat Plate.
7. Fix the DIMM Stopper Base using the 2 Screws. <N2>
8. Fix the DIMM Cover using the 5 Screws. <N1>

Screws <N1>: DRHM0002ZA
Screws <N5>: DRQT26+D4FKL
Screws <N6>: DRQT26+E4FKL
Screws <N8>: DRSB3+8FKL
Screws <N17>: DRQT26+E6FKL

Note:

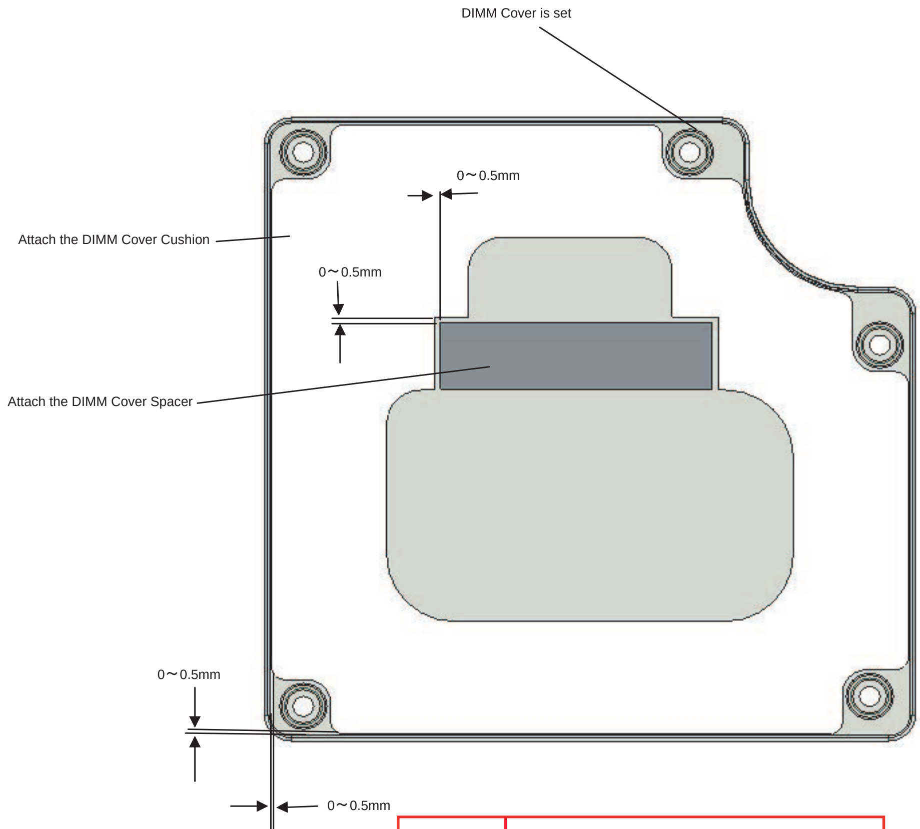
Tighten the Screws in the numbered order (No1 to No6).
Tighten the Screws in the numbered order (No1 to No11).
Tighten the Screws in the numbered order (No1, No2).
Tighten the Screws in the numbered order (No1 to No5).



■ Preparation of DIMM Cover

* Notes:

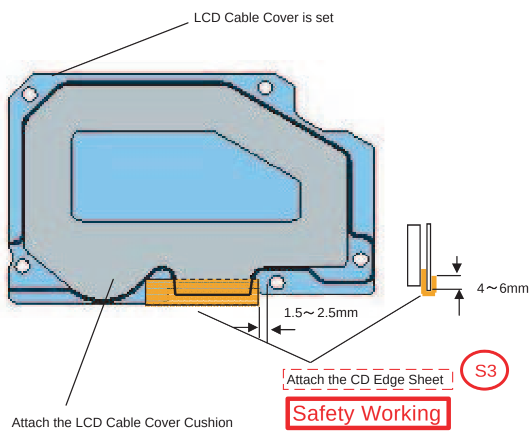
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

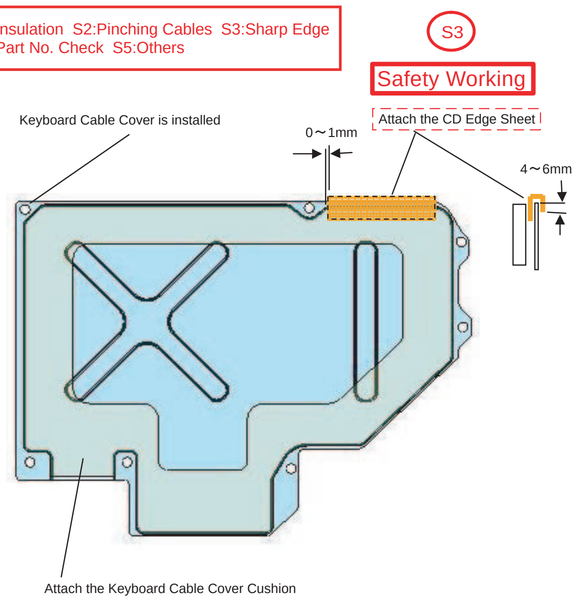


CAUTION	S1:Insulation S2:Pinching Cables S3:Sharp Edge S4:Part No. Check S5:Others

* Notes:

1. Apply the load when attaching the attaching parts. 20N to 30N (2 to 3Kgf)/cm2

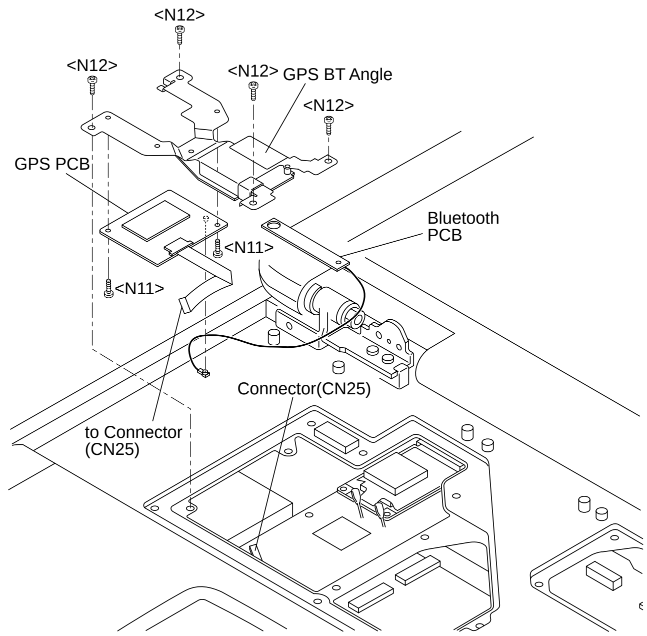




7.2.15. Setting the GPS PCB and Bluetooth PCB

1. Fix the GPS BT Angle and GPS PCB using the 2 Screws. <N11>
2. Connect the Cable to the Connector on GPS PCB.
3. Fix the GPS Ass'y using the 4 Screws. <N12>
4. Connect the Cable to the Connector. (CN25)

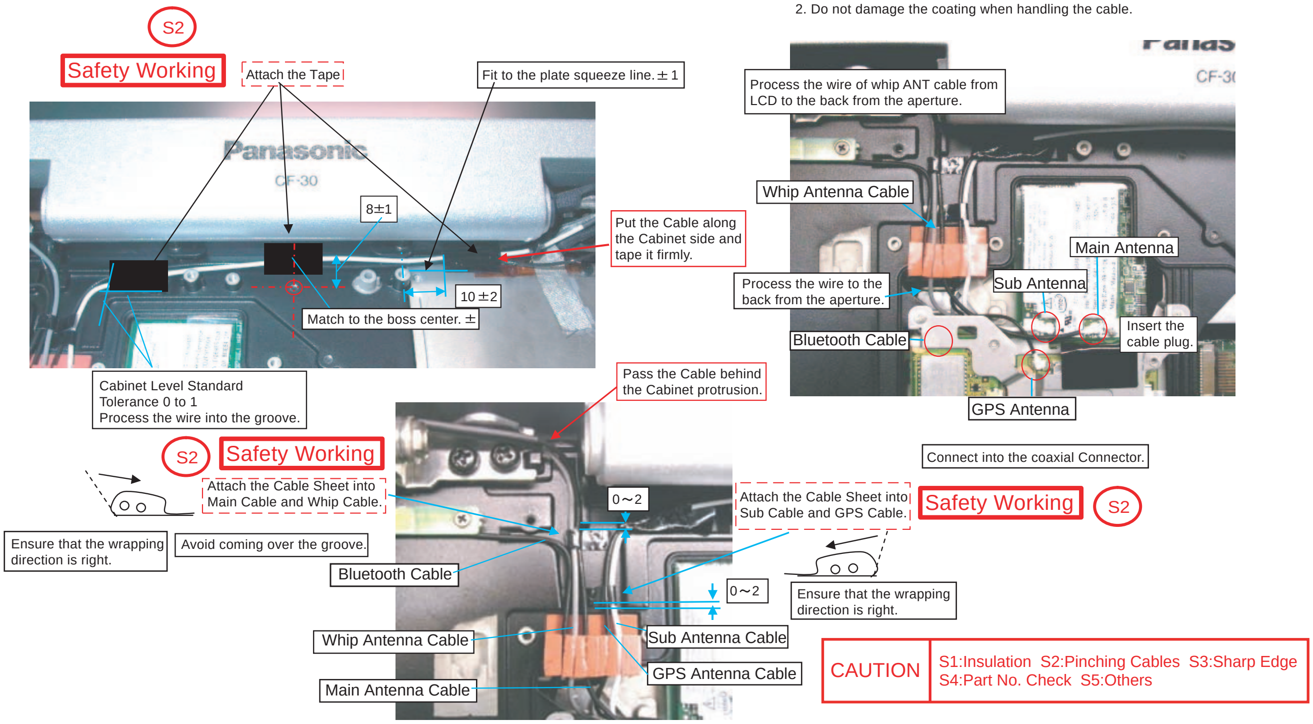
Screws <N11>: DFHE5025XA
Screws <N12>: DXQT2+F3FNL



■ Cautions for Setting GPS ASSY and BT PCB ASSY

* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

* Notes:
1. Do not gouge when inserting and removing the plug.
2. Do not damage the coating when handling the cable.



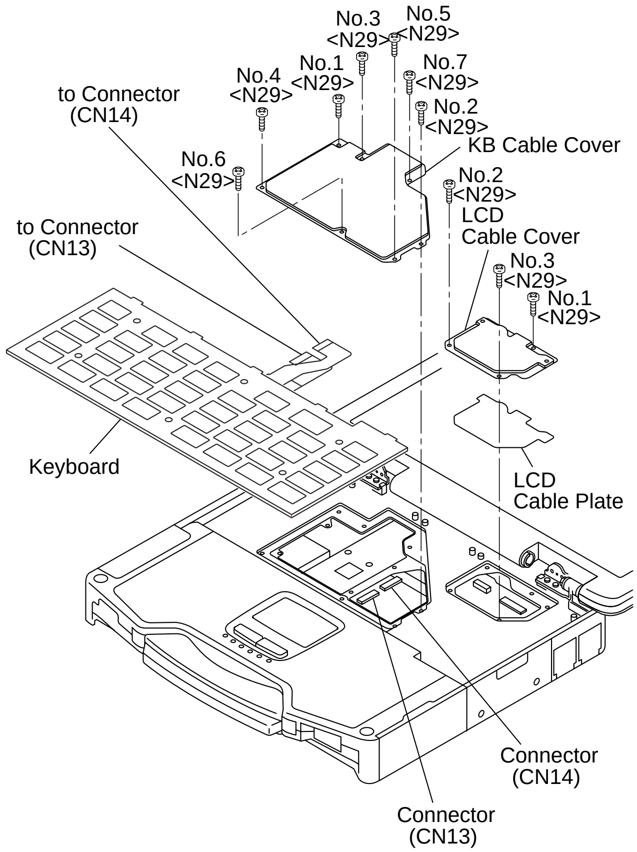
7.2.16. Setting the KB Cable Cover, Keyboard and LCD Cable Cover

1. Set the Keyboard onto the Computer.
2. Connect the 2 Cables to the 2 Cables. (CN13,CN14)
3. Fix the KB Cable Cover using the 7 Screws. <N29> No1 to No7
4. Set the LCD Cable Plate.
5. Fix the LCD Cable Cover using the 3 Screws. <N29> No1 to No3

Note:

Tighten the Screws in the numbered order (No1 to No7).
Tighten the Screws in the numbered order (No1 to No3).

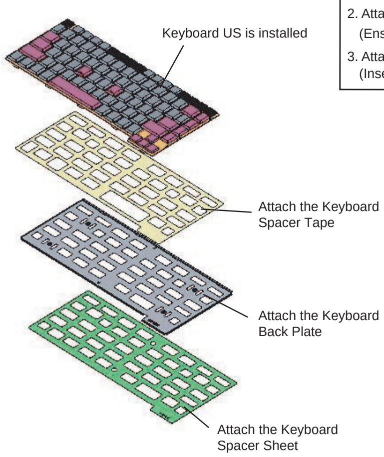
Screws <N29>: DRQT26+E3FNL

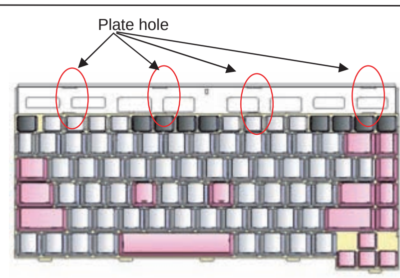


■ Arranging the Keyboard

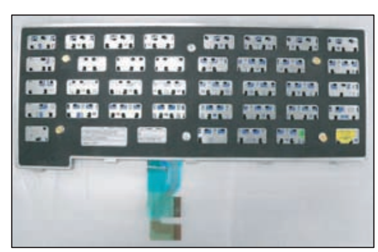
* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

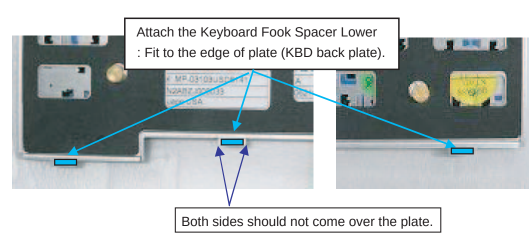
1. Attach the Keyboard US and Keyboard Spacer. (KB Preparation)
2. Attach the Keyboard Back Plate and Keyboard Spacer Sheet. (Plate Preparation)
(Ensure Keyboard Spacer Sheet does not run over the level of Keyboard Back Plate.)
3. Attach the prepared KB to the prepared plate.
(Insert the KB protrusions into the plate holes and determine the position.)





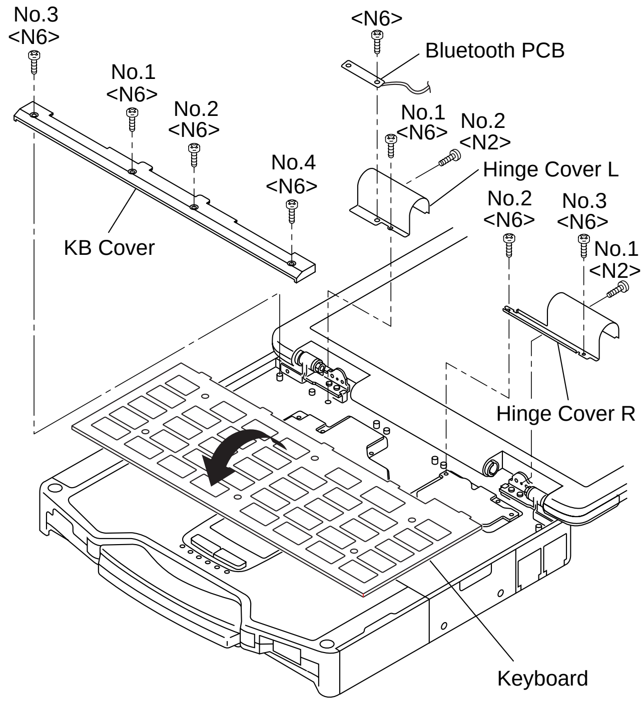






7.2.17. Setting the KB Cover, Hinge Cover L, Hinge Cover R and Keyboard

1. Insert the front hooks of the Keyboard to the Top Cabinet in order, and set the Keyboard.
2. Fix the Hinge Cover L and R using the 3 Screws <N6> No1 to No3
3. Fix the Hinge Cover L and R using the 2 Screws. <N2> No1, No2
4. Fix the Bluetooth PCB using the Screw. <N6>
5. Fix the KB Cover using the 4 Screws. <N6> No1 to No4



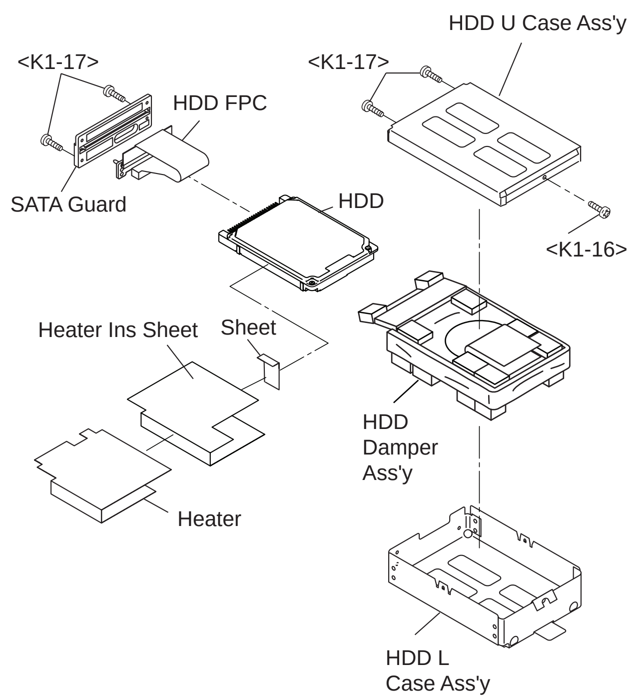
Note:

Tighten the Screws in the numbered order (No1 to No4).
Tighten the Screws in the numbered order (No1 to No3).
Tighten the Screws in the numbered order (No1, No2).

Screws <N2>: DRHM5054XA
Screws <N6>: DRQT26+E4FKL

7.2.18. Setting the HDD

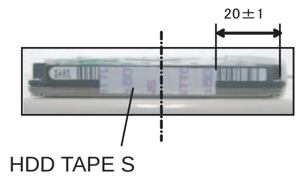
1. Set the HDD FPC to HDD.
2. Attach the Heater Ins Sheet and Sheet to HDD.
3. Attach the Heater to HDD.
4. Attach the 6 HDD Forming MFYPC and the two HDD Terminal Plate Upper to the HDD Damper Ass'y.
5. Attach the six HDD Forming MFYPC and the two HDD Terminal Plate Upper to the HDD Damper Ass'y.
6. Set the HDD Damper Ass'y to HDD.
7. Attach the Side Cushion to the HDD L Case Ass'y.
8. Set the HDD U Case Ass'y and the HDD L Case Ass'y, and set the two Tabs of the HDD L Case Ass'y.
9. Fix the HDD U Case Ass'y and the HDD L Case Ass'y using the 4 Screws <K1-17> and Screw <K1-16>.

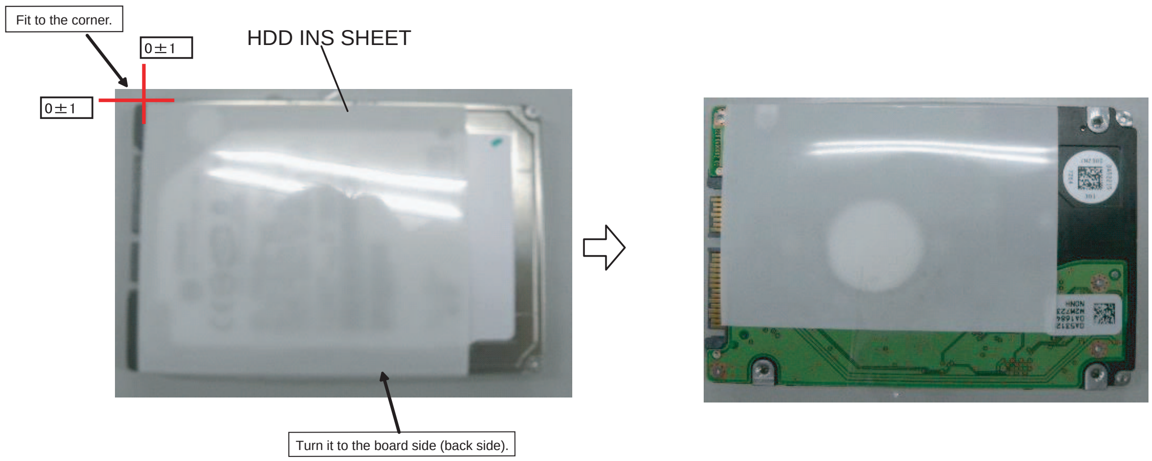


Screws <K1-16>: DFHE5025XA
Screws <K1-17>: DRQT2+E8FKL

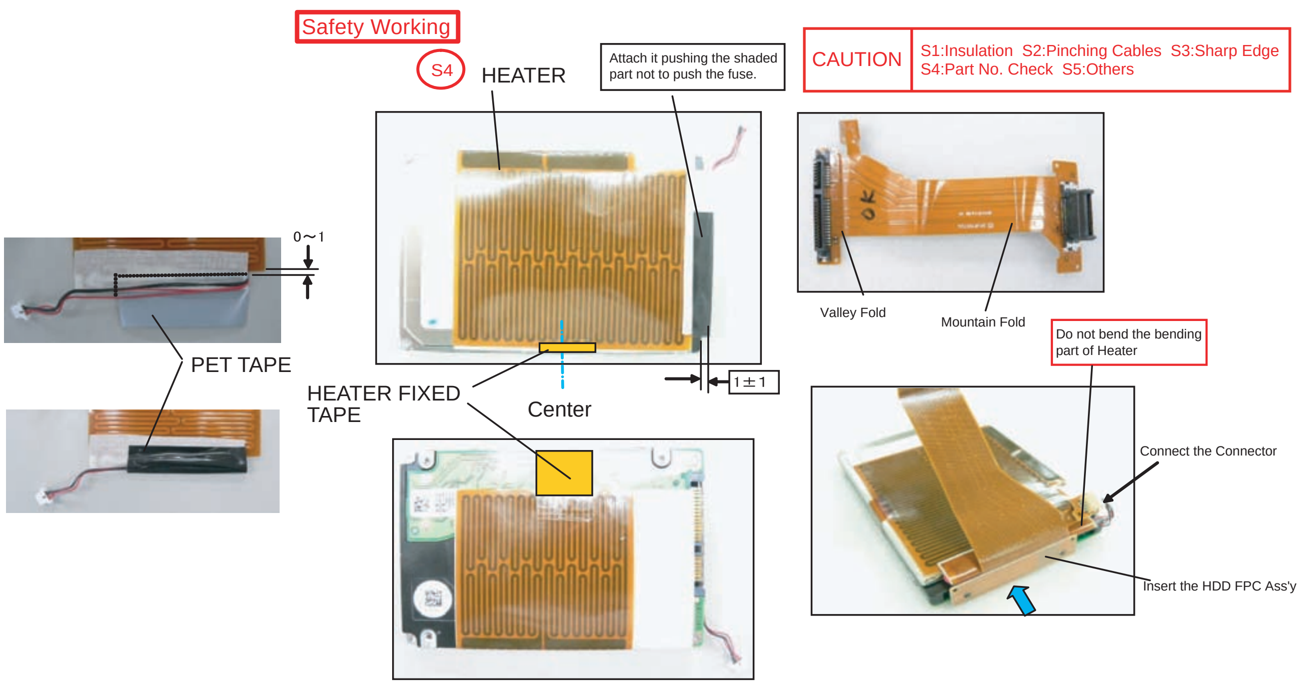
■ Preparation oh HDD ASSY

* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

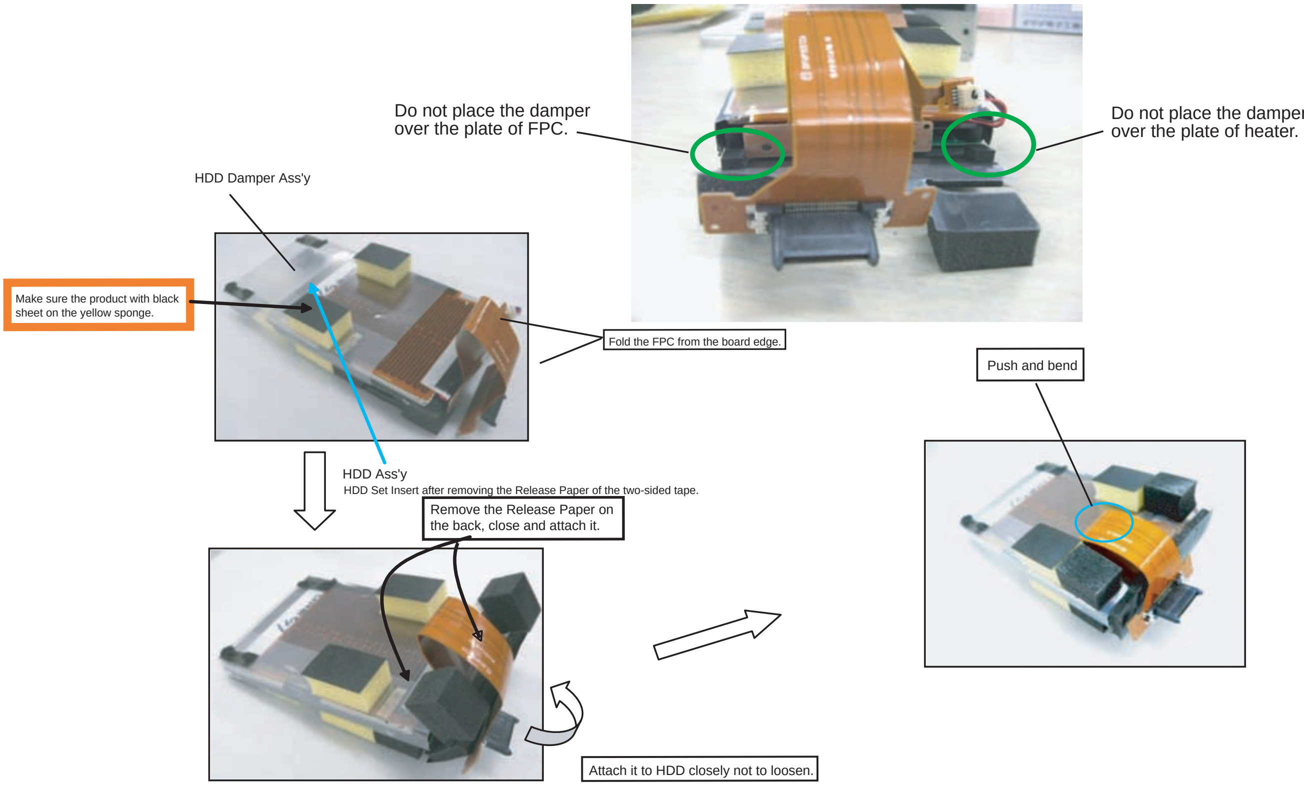




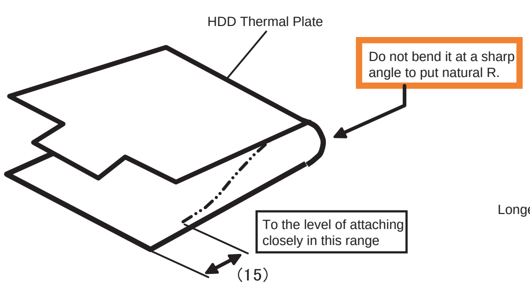
1. Do not gouge when inserting and removing the socket.
2. Do not drop HDD or add any impacts on it.
3. Insert CN into the end firmly.
4. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

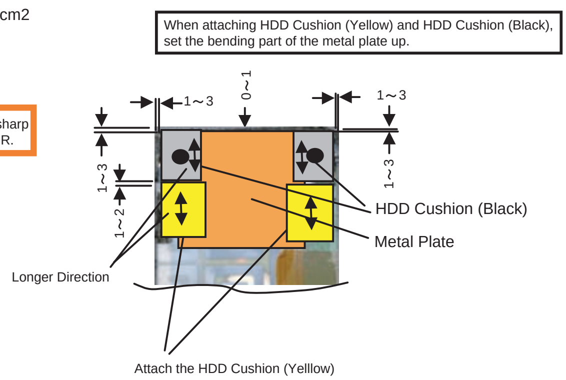


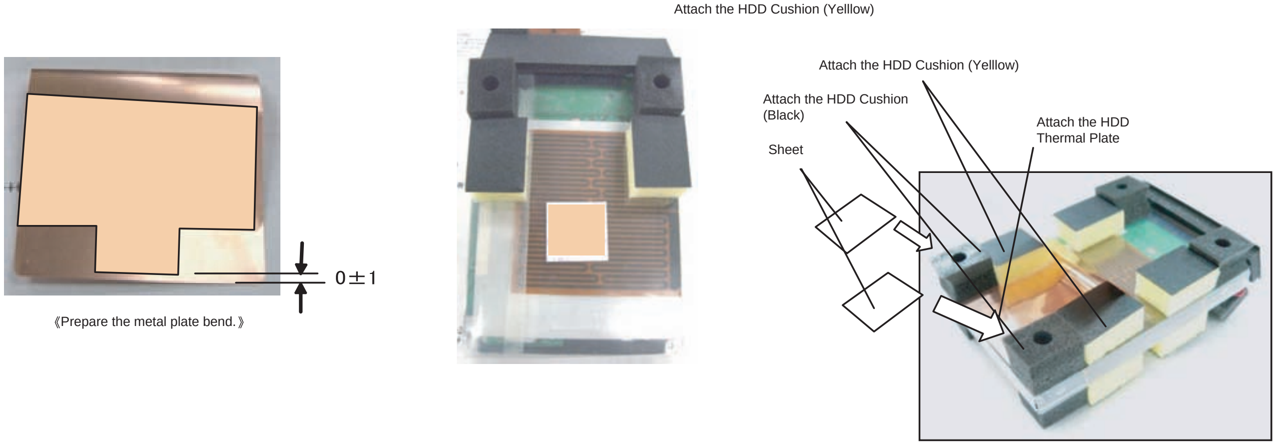
* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2



* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

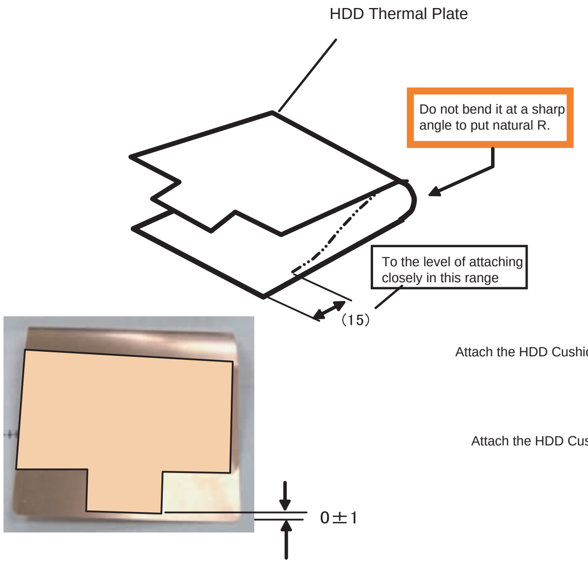


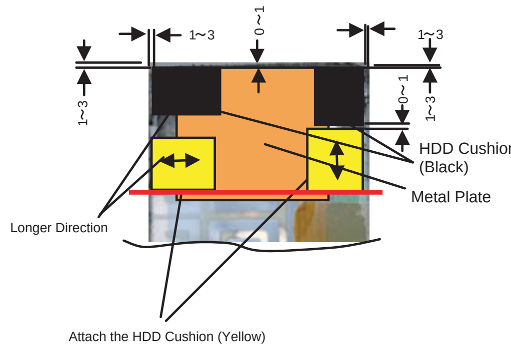


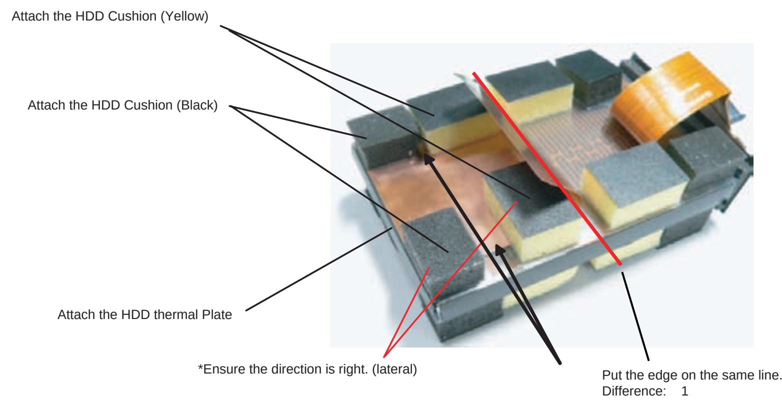


* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

When attaching HDD Cushion Plate and HDD Cushion (Black), set the bending part of the metal plate up.





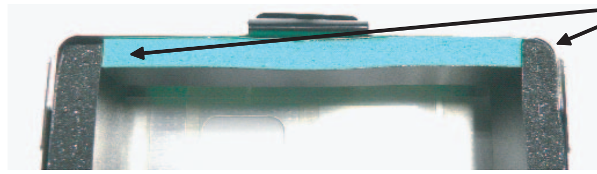


* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

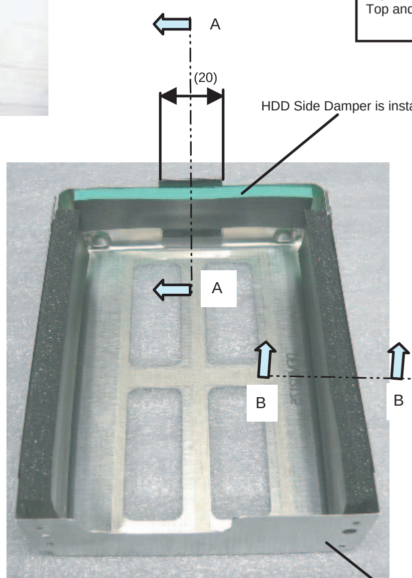
Make the black damper get int
both sides of the green dampe



Paste the cushion with pressing
in the direction of arrow.

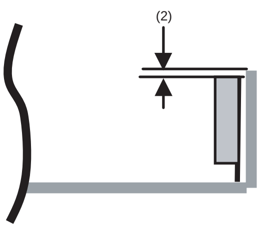


Right and left position: Match to the center
Top and bottom position: Match the edge of the base material transparent sheet to the bottom side

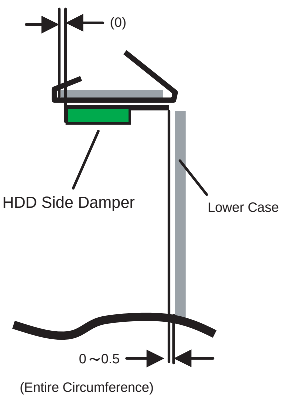


HDD Side Damper is installed

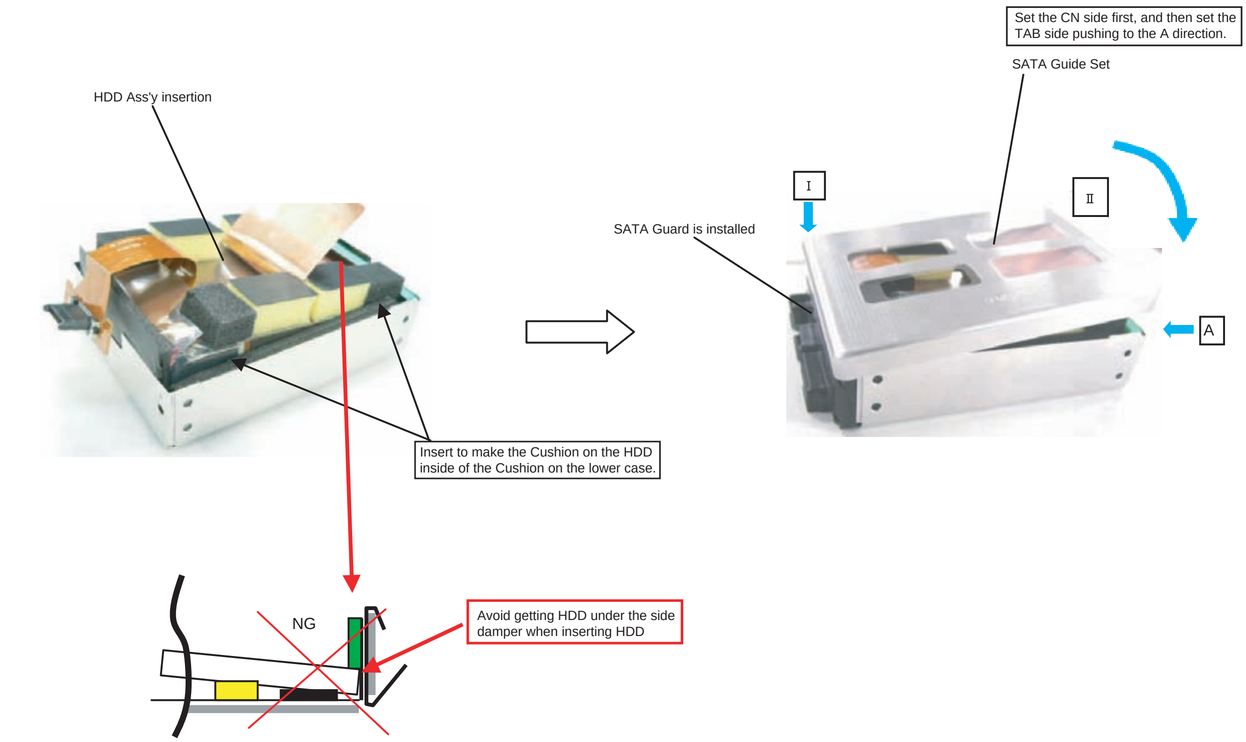
HDD Bottom Case Ass'y



B-B SEC

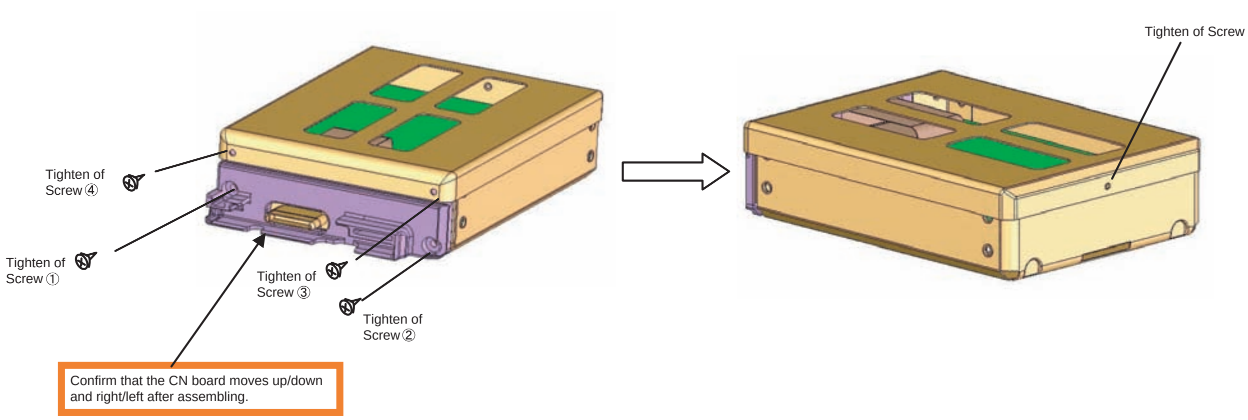


A-A SEC



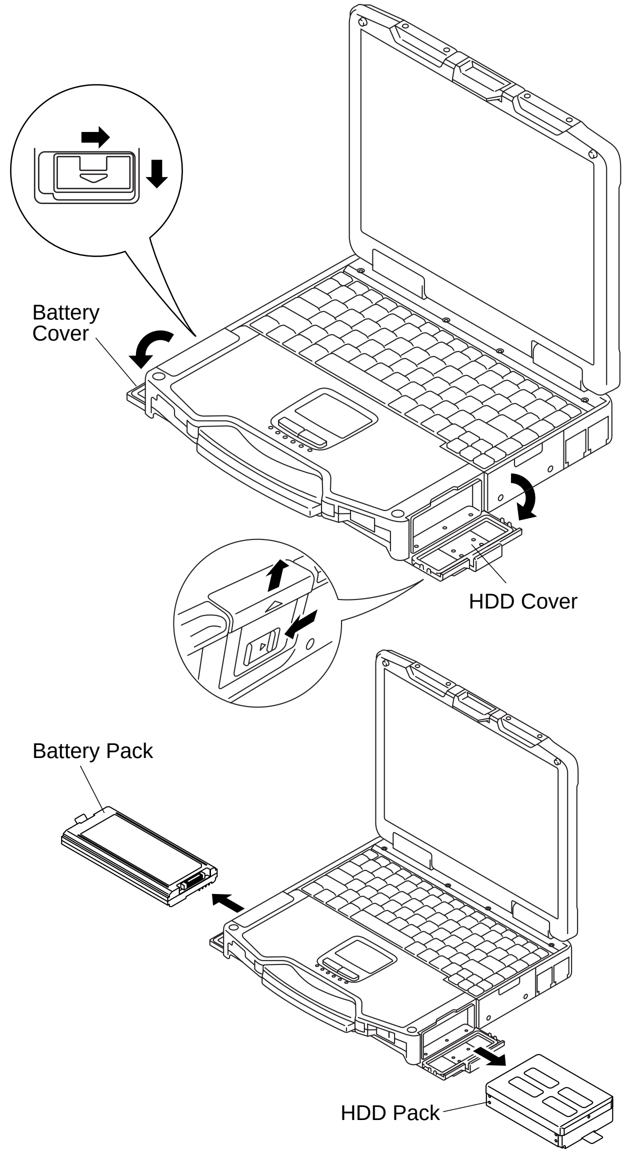
* Notes:
1. Apply the load when attaching the parts. 20N to 30N (2 to 3Kgf)/cm2

Order of fixing
Screw①→Screw②→Screw③→Screw④

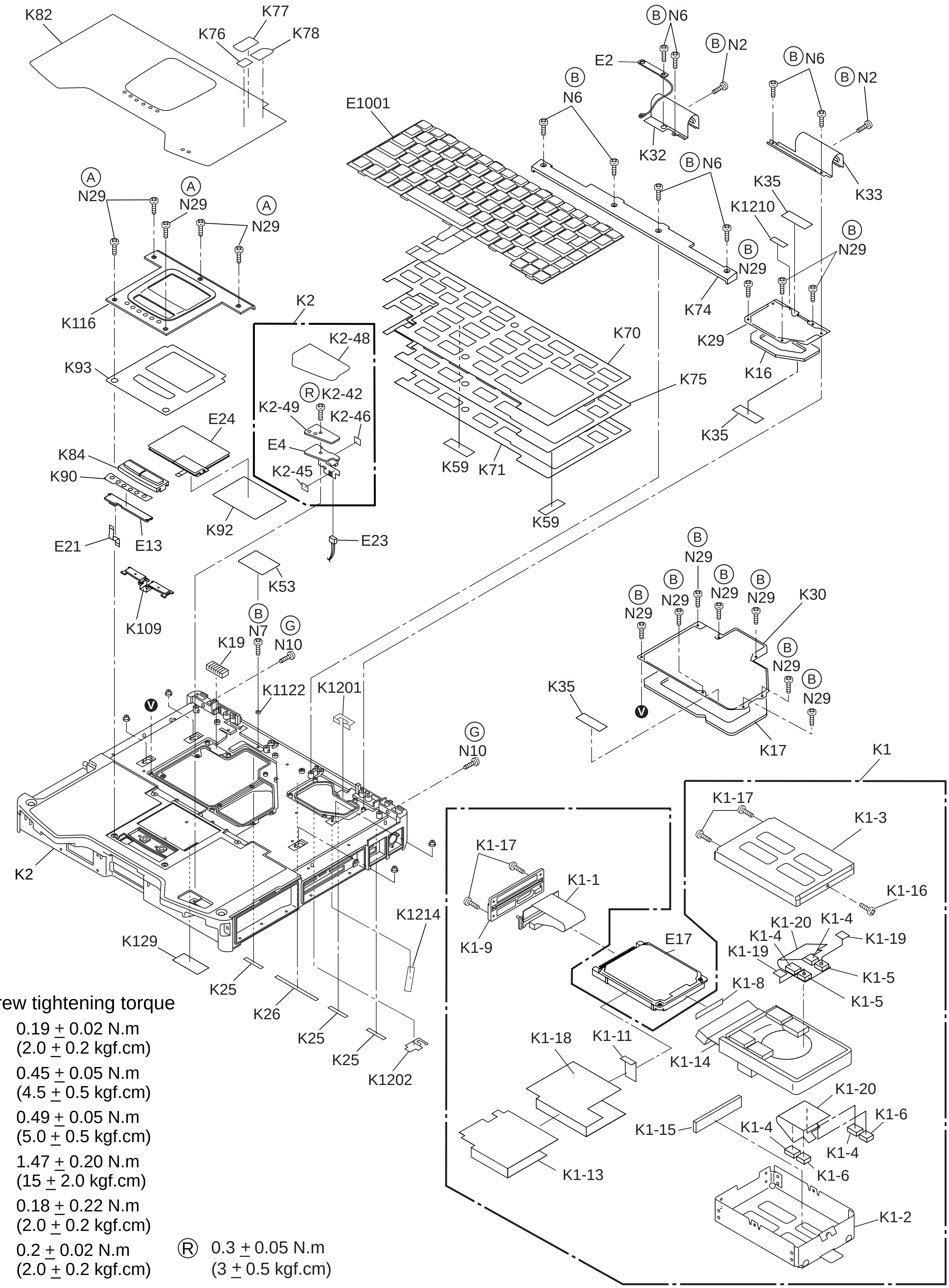


7.2.19. Setting the Battery Pack and HDD Pack

1. Set the HDD Pack.
2. Set the Battery Pack.



10 Exploded View



Screw tightening torque

Ⓐ 0.19 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)

Ⓑ 0.45 ± 0.05 N.m (4.5 ± 0.5 kgf.cm)

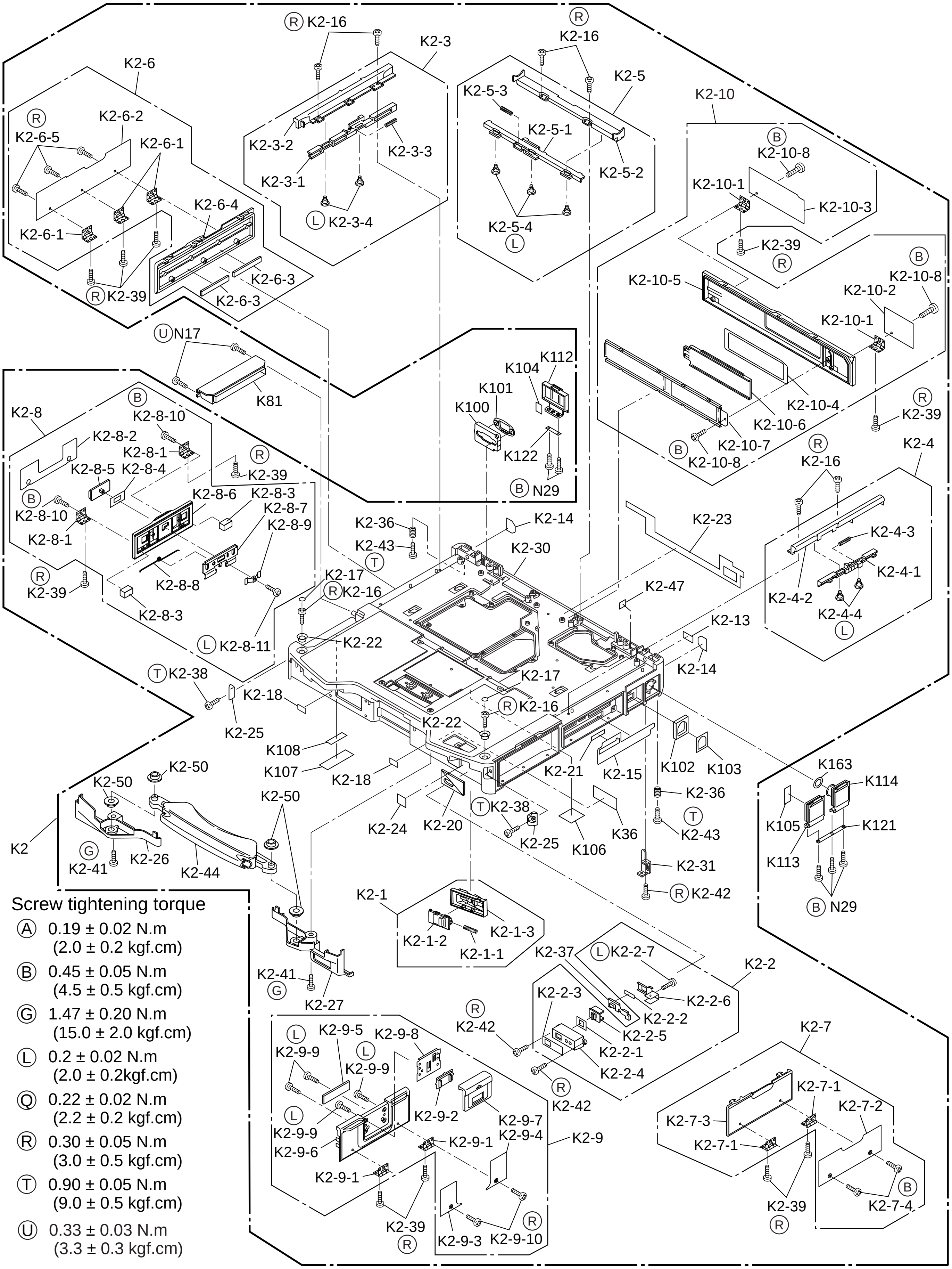
Ⓕ 0.49 ± 0.05 N.m (5.0 ± 0.5 kgf.cm)

Ⓖ 1.47 ± 0.20 N.m (15 ± 2.0 kgf.cm)

Ⓘ 0.18 ± 0.22 N.m (2.0 ± 0.2 kgf.cm)

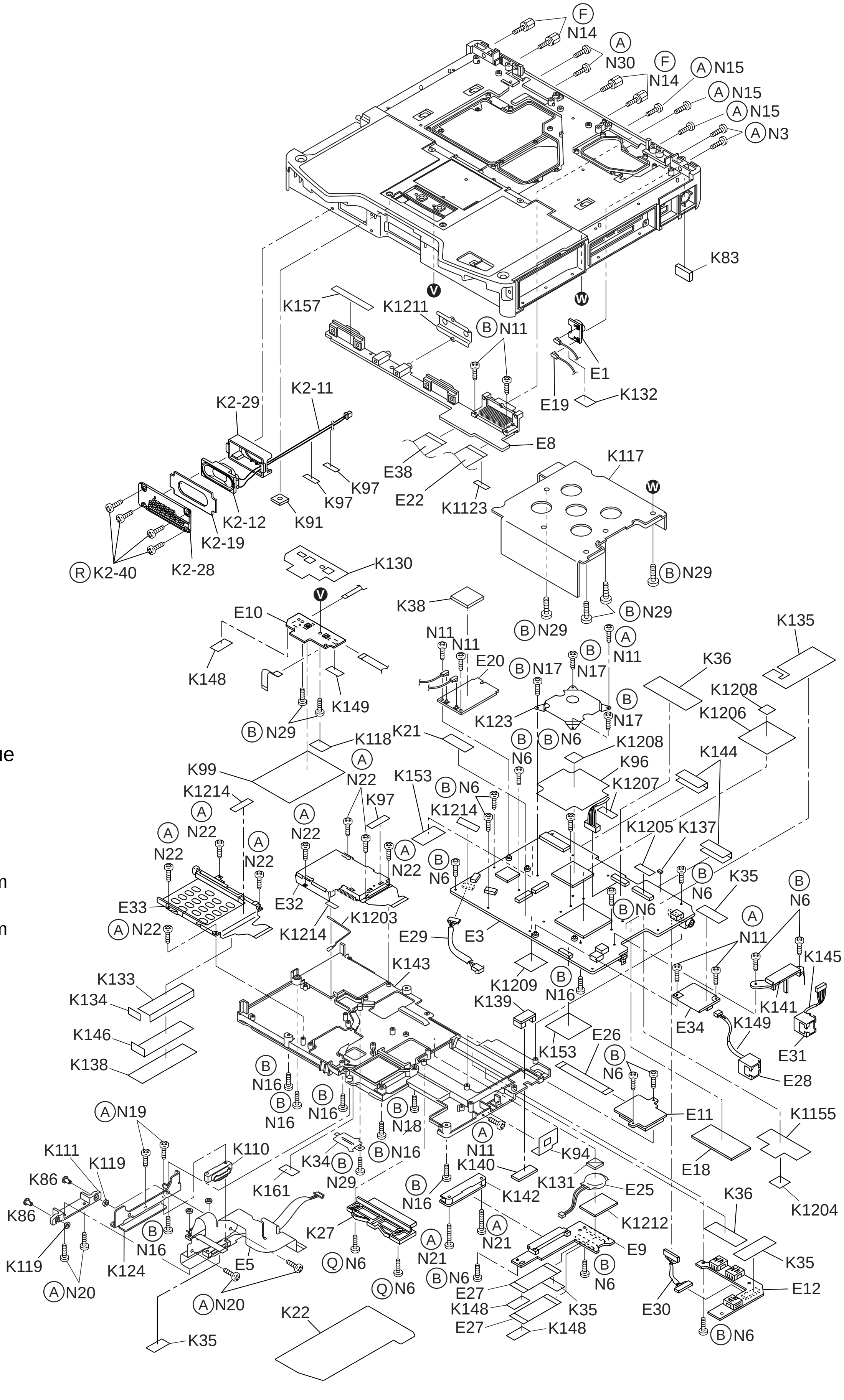
Ⓛ 0.2 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)

Ⓡ 0.3 ± 0.05 N.m (3 ± 0.5 kgf.cm)



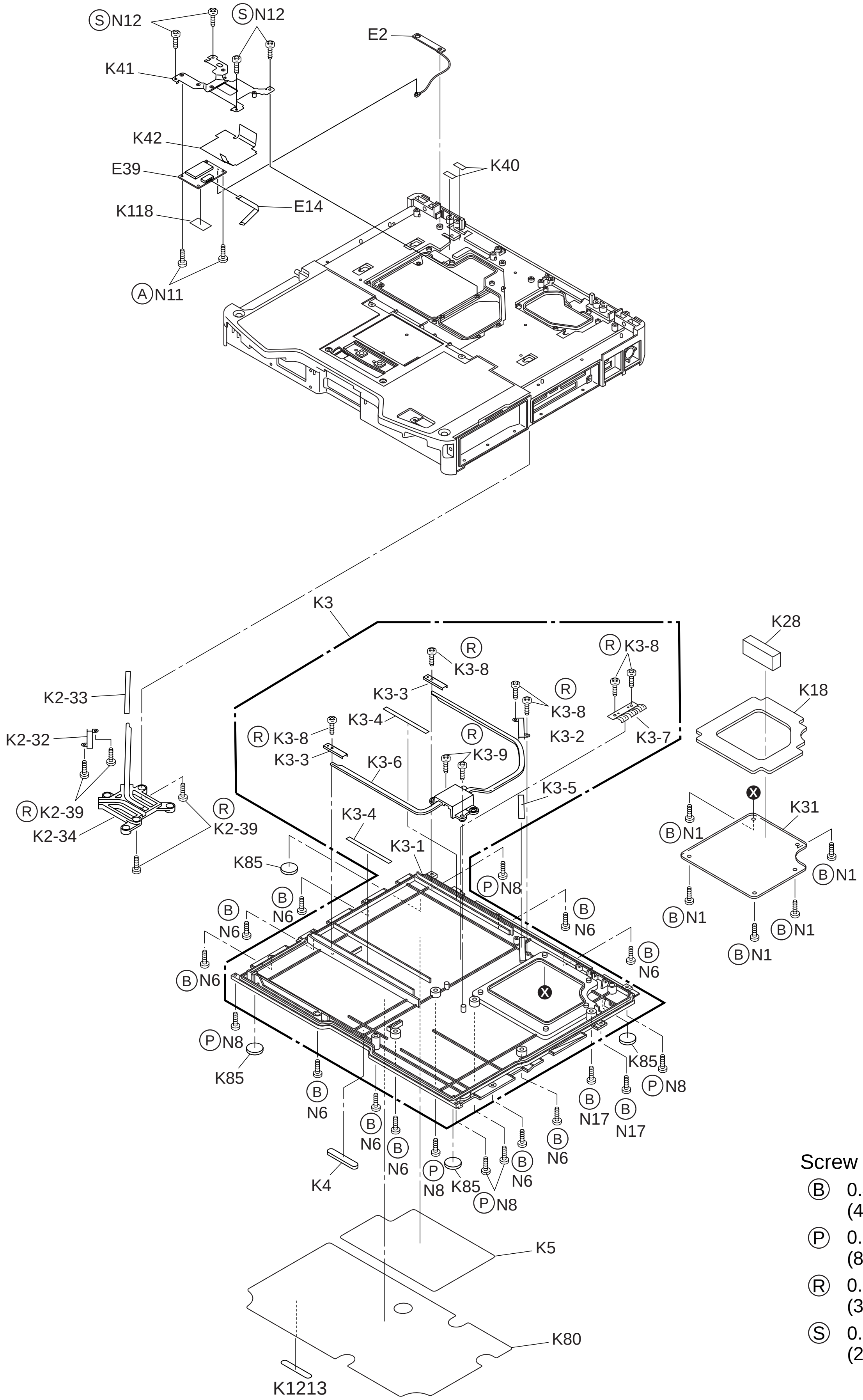
Screw tightening torque

- Ⓐ 0.19 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)
- Ⓑ 0.45 ± 0.05 N.m (4.5 ± 0.5 kgf.cm)
- Ⓖ 1.47 ± 0.20 N.m (15.0 ± 2.0 kgf.cm)
- Ⓛ 0.2 ± 0.02 N.m (2.0 ± 0.2kgf.cm)
- Ⓠ 0.22 ± 0.02 N.m (2.2 ± 0.2 kgf.cm)
- Ⓡ 0.30 ± 0.05 N.m (3.0 ± 0.5 kgf.cm)
- Ⓣ 0.90 ± 0.05 N.m (9.0 ± 0.5 kgf.cm)
- Ⓤ 0.33 ± 0.03 N.m (3.3 ± 0.3 kgf.cm)



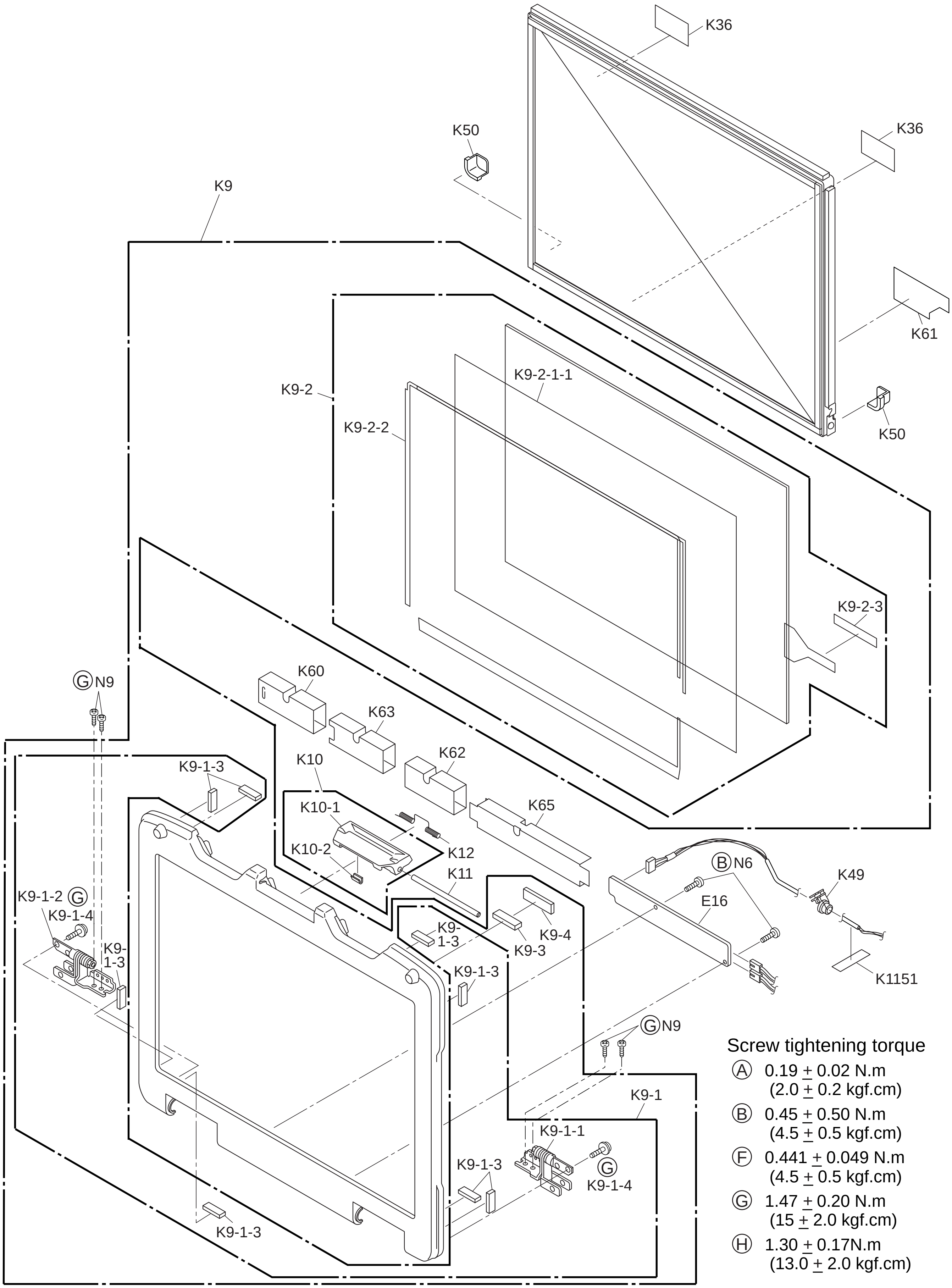
Screw tightening torque

- Ⓐ 0.19 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)
- Ⓑ 0.45 ± 0.05 N.m (4.5 ± 0.5 kgf.cm)
- Ⓒ 0.216 ± 0.0196 N.m (2.2 ± 0.2 kgf.cm)
- Ⓔ 0.314 ± 0.0196 N.m (3.2 ± 0.2 kgf.cm)
- Ⓕ 0.49 ± 0.05 N.m (5.0 ± 0.5 kgf.cm)
- Ⓖ 0.441 ± 0.049 N.m (4.5 ± 0.5 kgf.cm)
- Ⓗ 1.47 ± 0.20 N.m (15 ± 2.0 kgf.cm)
- Ⓘ 1.30 ± 0.17N.m (13 ± 2.0 kgf.cm)
- Ⓛ 0.18 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)
- Ⓜ 0.2 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)
- Ⓝ 0.45 ± 0.03 N.m (4.5 ± 0.3 kgf.cm)
- Ⓟ 0.8 ± 0.1 N.m (8.0 ± 1.0 kgf.cm)
- Ⓠ 0.22 ± 0.2 N.m (2.2 ± 2.0 kgf.cm)



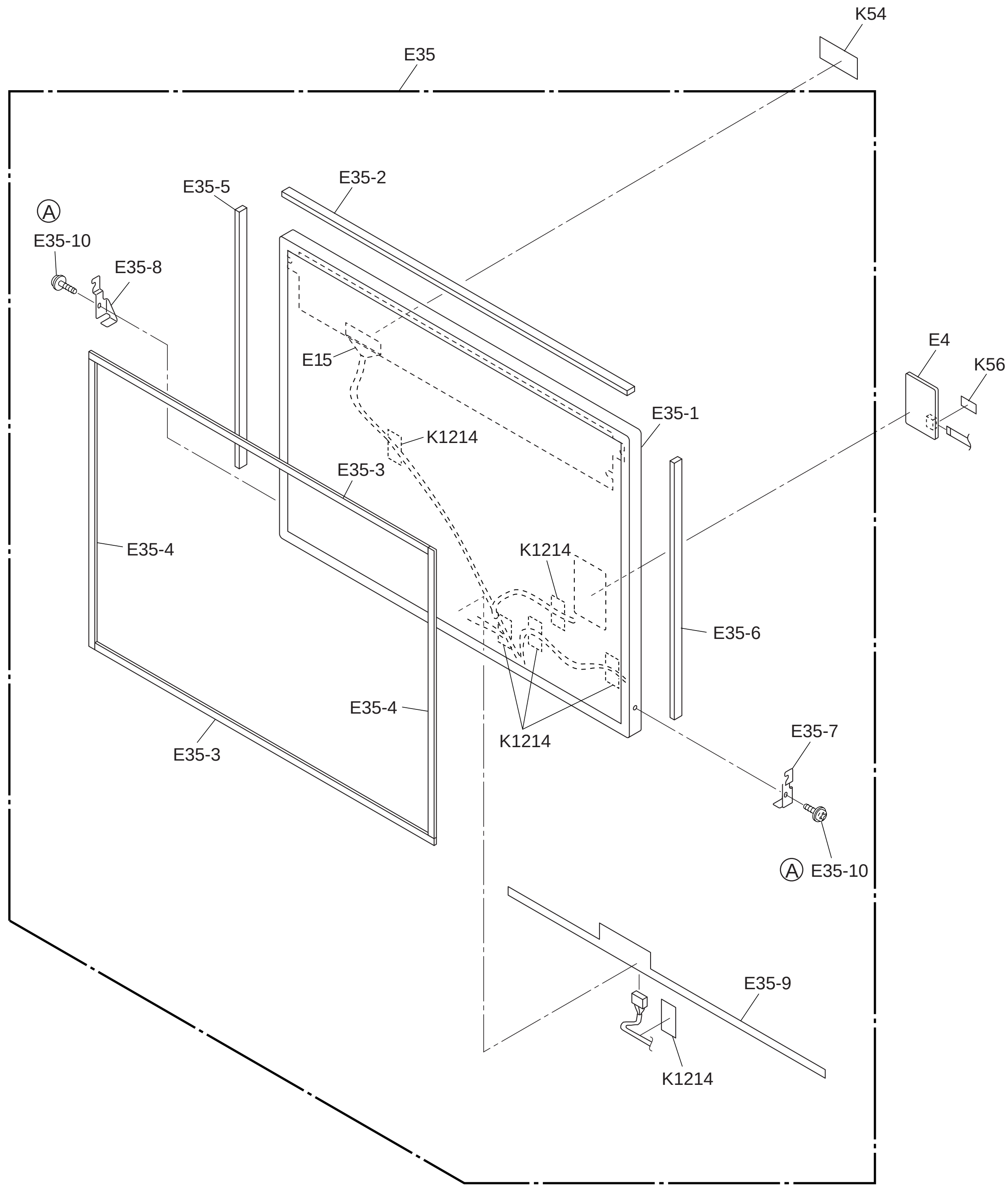
Screw tightening torque

Ⓑ	0.45 ± 0.05 N.m (4.5 ± 0.5 kgf.cm)
Ⓟ	0.8 ± 0.1N.m (8.0 ± 1.0 kgf.cm)
Ⓡ	0.3 ± 0.05 N.m (3.0 ± 0.5 kgf.cm)
Ⓢ	0.19 ± 0.05 N.m (2.0 ± 0.5 kgf.cm)



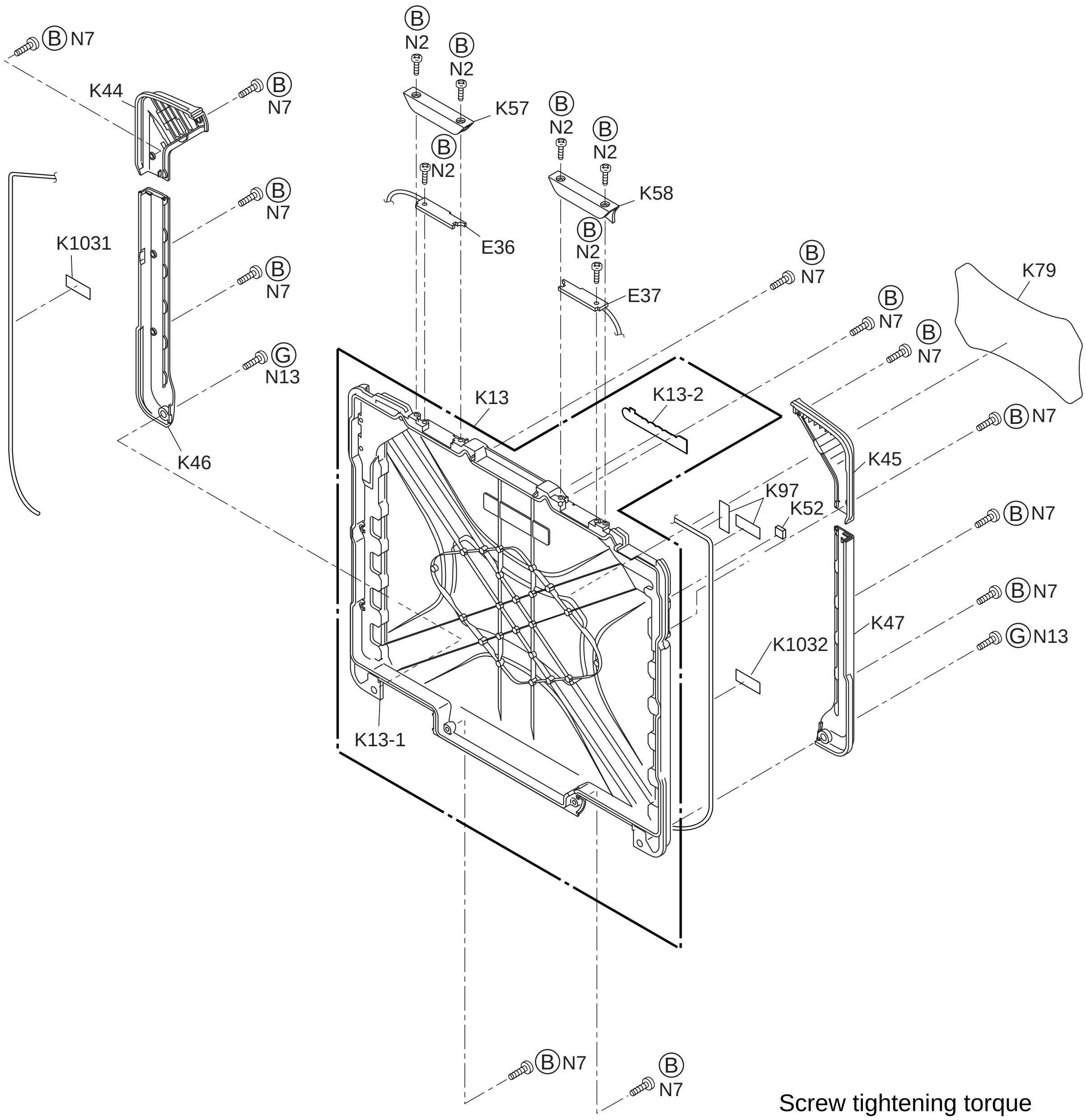
Screw tightening torque

- Ⓐ 0.19 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)
- Ⓑ 0.45 ± 0.50 N.m (4.5 ± 0.5 kgf.cm)
- Ⓕ 0.441 ± 0.049 N.m (4.5 ± 0.5 kgf.cm)
- Ⓖ 1.47 ± 0.20 N.m (15 ± 2.0 kgf.cm)
- Ⓗ 1.30 ± 0.17N.m (13.0 ± 2.0 kgf.cm)



Screw tightening torque

Ⓐ	0.19 ± 0.02 N.m (2.0 ± 0.2 kgf.cm)
Ⓑ	0.45 ± 0.05 N.m (4.5 ± 0.5 kgf.cm)
Ⓒ	0.216 ± 0.0196 N.m (2.2 ± 0.2 kgf.cm)
Ⓓ	0.314 ± 0.0196 N.m (3.2 ± 0.2 kgf.cm)
Ⓔ	0.49 ± 0.05 N.m (5.0 ± 0.5 kgf.cm)



Screw tightening torque

Ⓐ 0.19 ± 0.02 N.m
(2.0 ± 0.2 kgf.cm)

Ⓑ 0.45 ± 0.05 N.m
(4.5 ± 0.5 kgf.cm)

Ⓒ 0.216 ± 0.0196 N.m
(2.2 ± 0.2 kgf.cm)

Ⓓ 0.314 ± 0.0196 N.m
(3.2 ± 0.2 kgf.cm)

Ⓖ 1.47 ± 0.20 N.m
(15 ± 2.0 kgf.cm)

Ⓞ 0.49 ± 0.05 N.m
(5.0 ± 0.5 kgf.cm)

Replacement Parts List

Note : Important Safety Notice
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

CF-30FTSAZAM

REF. NO and	AREA	PART NO.	DESCRIPTION		Q'TY
Main Block Unit					
E1		DL3UP1336BAA	PCB, EXT ANT	RTL	1
E2		DL3UP1354CAA	PCB, BT ANT UNIT	RTL	1
E3		DL3UP1630AAA	PCB, MAIN UNIT FOR MK2	RTL	1
E4		DFWP0150ZA	SW-LED FPC UNIT		1
E5		DL3UP1543AAA	HDD BATTERY FPC UNIT		1
E7		DL3UP1580AAA	PCB, TOUCH PANEL CONTROLLER	RTL	1
E8		DL3U11540BAA	PCB, IO	RTL	1
E9		DL3U21540BAA	PCB, MP	RTL	1
E10		DL3U31540BAA	PCB, PAD	RTL	1
E11		DL3U41540BAA	PCB, SD	RTL	1
E12		DL3U61540BAA	PCB, USB	RTL	1
E13		DL3U71540BAA	PCB, LED	RTL	1
E14		DFJK10U050BB	FFC		1
E15		DFJS1031XA	LCD CABLE		1
E16	⚠	N0GF2J000002	INVERTER		1
E17	⚠	N3CAYYY00030	HDD, 80GB 5400RPM SATA		1
E18		N5ZZ00000129	SO-DIMM, DDR2-667 1GB		1
E19		DFJS1049ZA	W-LAN CABLE		1
E20	⚠	N5HZC0000031	WIRELESS LAN MODULE		1
E21		DFJK10T017BB	FFC		1
E22		DFJK40T030BB	FFC IO40		1
E23		DFJS1037ZB	POWER CABLE		1
E24		N2EABEC00006	TOUCHPAD		1
E25		BR-2330A/SF	LITHIUM COIN BATTERY		1
E26		DFJK12U050BB	FFC SD		1
E27		DFJK40U056BB	FFC MP OUTER		2
E28		DFJS1032YA	MODEM CABLE		1
E29		DFJS1035YA	SATA CABLE		1
E30		DFJS1036ZA	CABLE USB		1
E31		DFJS1046YA	LAN CABLE		1
E32		K1NA26Z00001	CONNECTOR		1
E33		K1NA68Z00009	PCMCIA CONNECTOR		1
E34	⚠	N5HAZ0000014	MODEM		1
E35		DFWV08A0090	LCD UNIT ASS'Y		1
E35-1		DL3DE0183AAA	LCD PREPARATION UNIT		1
E35-2		DFHG1926YA	LCD SIDE DAMPER(U)		1
E35-3		DFHG1927ZA	TS SPACER(L)		2
E35-4		DFHG1928ZA	TS SPACER(S)		2
E35-5		DFHG1882YA	LCD DMP L		1
E35-6		DFHG1883YB	LCD SIDE DMP R		1
E35-7		DFMD3130ZA	LCD HOLD PLATE L		1
E35-8		DFMD3131ZA	LCD HOLD PLATE R		1
E35-9	⚠	L9DZYY000006	HEATER(LCD)		1
E35-10		DXYN2+C3FNL	SCREW		2
E36		N1ZYYY000005	WLAN MAIN ANTENNA		1
E37		N1ZYYY000006	WLAN SUB ANTENNA		1
E38		DFUP1565ZA	FPC		1
E39		DL3UP1635BAA	BT PWB UNIT FOR 30MK2	RTL	1
E1001		N2ABZY000035	KEYBOARD VISTA, U.S.		1

Accessories				
A1	⚠	NCR-B/901A	LITHIUM ION BATTERY PACK	1
A2	⚠	CF-AA1653ASA	AC ADAPTOR	1
A3		DFHR6207ZA	PEN	1
A4		DFHS9017ZA	TOUCHPANEL CLOTH	1
A5		DFME0148YA	PEN TETHER	1
A6	⚠	DFQW5098ZA	MANUAL(CF30MK2M XP)	1
A7	⚠	K2CG3DR00003	AC CORD	1
A8		DFJS954ZA	MODEM CABLE	1
A21		DFHR6339ZA-0	DUMMY EXPRESS CARD	1
A22		DFHR6340ZA-0	DUMMY PC CARD	1
A23	⚠	DFKE0911ZC-0	MP DUMMY CASE	1
A91		DFQM8357MA	RECOVERY DVD, VISTA	1
Packing Material				
P1		DFPH0064ZA	PACKING PAPER	1
P2		DFPP0143ZA	PROTECTION BAG	1
P3		DFPE0852ZA	MANUAL HOLDER	1
P4		DFPN0845ZA	DB CUSHION	1
P5		DFPK1202WA	PACKING CASE(OVERSEAS)	1
Mechanical Parts				
K1		DFWV99A0125	HDD MOUNTING KIT	1
K1-1		DL3UP1557AAA	HDD PACK FPC UNIT	1
K1-2		DFMD8041YA	HDD LOWER CASE ASS'Y	1
K1-3		DFMD8042YA	HDD UPPER CASE ASS'Y	1
K1-4		DFHG1750YB	HDD CUSHION(YELLOW)	4
K1-5		DFHG1933ZA	FIX CORE CUSHION	2
K1-6		DFHG1934ZA	HDD FORMING M2	2
K1-8		DFHP7101ZA	DOUBLE SIDE TAPE(7X30)	1
K1-9		DFHR6264ZA	SATA GUARD	1
K1-11		DFMX0634ZA	CD EDGE SHEET	1
K1-13	⚠	L9DZYY000008	HEATER(HDD)	1
K1-14		DFHR8522XA	HDD DAMPER ASS'Y	1
K1-15		DFHR8523WA	HDD SIDE DAMPER ASS'Y	1
K1-16		DFHE5025XA	SCREW	1
K1-17		DRQT2+E8FKL	SCREW	4
K1-18		DFMX1265ZB	HEATER INS SHEET	1
K1-19		DFHR3H11ZA	HDD CUSHION TOP SHEET	2
K1-20		DFMY3263ZA	HDD THERMAL PLATE LOWER	2
K2	⚠	DFKM8183TA-0	TOP CASE ASS'Y	1
K2-1		DFBD9010ZA-0	POWER SW ASS'Y	1
K2-1-1		DFHR6251ZA-0	POWER SW FLAME	1
K2-1-2		DFHR6252ZA-0	POWER SW KNOB	1
K2-1-3		DFUQ0114ZA	POWER SW KNOB SPRING	1
K2-2		DFBD9011XA-0	WIRELESS OFF SW ASS'Y	1
K2-2-1		DFHG1885YA	WM SW CUSHION	1
K2-2-2		DFHP7140ZAT	TAPE	1
K2-2-3		DFHR3D54ZA-0	WM SW SHEET	1
K2-2-4		DFHR6257ZB	WIRELESS SW CASE	1
K2-2-5		DFHR6258ZA-0	WIRELESS SW KNOB	1
K2-2-6		DFMD7B10YA	WM OFF SW PLATE	1
K2-2-7		XTB2+4GFN	SCREW	1
K2-3	⚠	DFKE8185ZA-0	MP LATCH ASS'Y	1
K2-3-1		DFBD0190ZA-0	MP LATCH LEVER	1
K2-3-2	⚠	DFKE0861ZA-0	MP LATCH CASE	1
K2-3-3		DFUQ0113ZA	SD LATCH SPRING	1
K2-3-4		DRHM0110ZAT	SCREW	2
K2-4	⚠	DFKE8186ZA-0	SD LATCH ASS'Y	1
K2-4-1		DFBD0192ZA-0	SD LATCH LEVER	1
K2-4-2	⚠	DFKE0867ZA-0	SD LATCH CASE	1

K2-4-3	DFUQ0113ZA	SD LATCH SPRING	1
K2-5-4	DRHM0110ZAT	SCREW	2
K2-5 ⚠	DFKE8187YA-0	CN LATCH ASS'Y	1
K2-5-1	DFBD0193ZA-0	CN LATCH LEVER	1
K2-5-2 ⚠	DFKE0869YA-0	CN LATCH CASE	1
K2-5-3	DFUQ0116ZA	CN LATCH SPRING	1
K2-5-4	DRHM0110ZAT	SCREW	3
K2-6 ⚠	DFKE8188ZA-0	MP COVER ASS'Y	1
K2-6-1	DFBH3051ZA	LID HINGE	3
K2-6-2	DFGE0139ZA-0	MP COVER SHEET	1
K2-6-3	DFHR3E55ZA	MP COVER CUSHON	2
K2-6-4 ⚠	DFKE0860ZA-0	MP COVER	1
K2-6-5	DRQT26+D3KLT	SCREW	3
K2-7 ⚠	DFKE8189YA-0	SD COVER ASS'Y SDHC	1
K2-7-1	DFBH3051ZA	LID HINGE	2
K2-7-2	DFGE0140YA-0	SD COVER SHEET	1
K2-7-3 ⚠	DFKE0866ZA-0	SD COVER	1
K2-7-4	DRQT26+D3KLT	SCREW	2
K2-8 ⚠	DFKE8190XB-0	BATT COVER ASS'Y	1
K2-8-1	DFBH3051ZA	LID HINGE	2
K2-8-2	DFGE0141ZA-0	BATT COVER SHEET	1
K2-8-3	DFHR3E56ZA	BATT COVER CUSHION	2
K2-8-4	DFHR3E59ZA	BATT LID KNOB SHEET	1
K2-8-5 ⚠	DFKE0799ZA-0	LID KNOB	1
K2-8-6 ⚠	DFKE0862XA-0	BATT COVER	1
K2-8-7	DFMD7B12ZA	BATT LATCH ANGLE	1
K2-8-8	DFUN0084XA	BATT LATCH SPRING	1
K2-8-9	DFUS0323ZA	LID KNOB SPRING PLATE	1
K2-8-10	DRQT26+D3KLT	SCREW	2
K2-8-11	DXQT2+F3FNLT	SCREW	1
K2-9 ⚠	DFKE8191YA-0	HDD COVER ASS'Y	1
K2-9-1	DFBH3051ZA	LID HINGE	2
K2-9-2	DFBD0191ZA-0	HDD COVER LOCK KNOB	1
K2-9-3	DFGE0149ZA-0	HDD COVER SHEET L	1
K2-9-4	DFGE0150ZA-0	HDD COVER SHEET R	1
K2-9-5	DFHR3E57ZA	HDD COVER CUSHION	1
K2-9-6 ⚠	DFKE0864YA-0	HDD COVER	1
K2-9-7 ⚠	DFKE0865ZA-0	HDD COVER LID KNOB	1
K2-9-8	DFUS0311ZA	HDD COVER SPRING PLATE	1
K2-9-9	DRQT2+D25KMT	SCREW	4
K2-9-10	DRQT26+D3KLT	SCREW	2
K2-10 ⚠	DFKE8192ZA-0	CN COVER ASS'Y	1
K2-10-1	DFBH3051ZA	LID HINGE	2
K2-10-2	DFGE0143ZA-0	CN COVER SHEET L	1
K2-10-3	DFGE0144ZA-0	CN COVER SHEET R	1
K2-10-4	DFHR3E58ZA	CN PACKIN-SLIDE	1
K2-10-5 ⚠	DFKE0868ZA-0	CN COVER	1
K2-10-6 ⚠	DFKE0875ZA-0	CN SLIDE COVER	1
K2-10-7	DFMD7B11ZA	CN WATER PROOF PLATE	1
K2-10-8	DRQT26+D3KLT	SCREW	3
K2-11	DFJS1030ZA	SP CABLE	1
K2-12	L0AA04C00012	SPEAKER	1
K2-13	DFGE0111YA-0	TOP LOOK SHEET	1
K2-14	DFGE0145ZA-0	REAR BELT COVER SHEET	2
K2-15	DFGL0153ZB-0	SD LED SHEET (NO SC)	1
K2-16	DFHE5121YA	SCREW	8
K2-17	DFHG1699ZA	LCD LOCK SHEET	2
K2-18	DFHG1891ZA	HANDLE ARM CUSHION	2
K2-19	DFHG1892YA	SPEAKER CASE CUSHION	1

K2-20		DFHG1931ZA	WM SW CASE CUSHION	1
K2-21		DFHG1973ZAT	SD SHEET SPACER TW	1
K2-22		DFHM0419YA	LCD FOOT CAP	2
K2-23		DFHR3D56ZA-0	CN COVER SHEET	1
K2-24		DFHR3E66ZA	POWER SW CUSHION	1
K2-25		DFHR6291YB-0	FRONT BELT COVER	2
K2-26	⚠	DFKE0851ZB-0	HANDLE BASE L	1
K2-27	⚠	DFKE0852ZB-0	HANDLE BASE R	1
K2-28	⚠	DFKE0856ZB-0	SPEAKER CASE A	1
K2-29	⚠	DFKE0876ZB	SPEAKER CASE B	1
K2-30	⚠	DFKM0516WA-0	TOP CASE	1
K2-31		DFMD2170ZA	KENSINGTON PLATE	1
K2-32		DFMD2172ZA	HEAT PIPE ANGLE A	1
K2-33		DFMY0414ZA	CPU HEAR PIPE RUBBER	1
K2-34		DFMY5037ZA	HEAT PIPE UNIT A(TOP)	1
K2-36		DFUQ0102ZA	POTRE SPRING	2
K2-37		DFWP0145YA	FPC	1
K2-38		DRHM0118ZAT	SCREW	2
K2-39		DRQT26+D3KLT	SCREW	15
K2-40		DRQT26+D5KLT	SCREW	4
K2-41		DRSN4+6FKLT	SCREW	2
K2-42		DXQT26+D4NLT	TW SCREW	4
K2-43		DXQT3+F4FNLT	SCREW	2
K2-44		DFKH8009YA-0	HANDLE ASS'Y	1
K2-45		DFHP7140ZAT	DOUBLE SIDE TAPE	1
K2-46		DFHR3G74ZAT	PW SW CUSHION	1
K2-47		DFHR3K43ZAT	LCD HINGE SPACER	1
K2-48		DFHR3E97ZA	P LED SHEET	1
K2-49		DFHR6356ZA	POWER SW LED PANEL TW	1
K2-50		DFHR6089YA-0	HANDLE ARM BUSH	4
K3	⚠	DFKF8170YA-0	BOTTOM CASE ASS'Y	1
K3-1	⚠	DFKF0271YA-0	BOTTOM CASE	1
K3-2		DFMD2172ZA	HEAT PIPE ANGLE A	1
K3-3		DFMD2173ZA	HEAT PIPE ANGLE B	2
K3-4		DFMY0414ZA	CPU HEAR PIPE RUBBER	2
K3-5		DFMY0437ZA	HEAT PIPE RUBBER B	1
K3-6		DFMY5038YA	HEAT SINK UNIT C	1
K3-7		DFUS0324ZA	MP ESD SPRING	1
K3-8		DRQT26+D3KLT	SCREW	6
K3-9		DXQT26+D4NLT	TW SCREW	2
K4		DFGE0087ZA-0	BOTTOM COVER SHEET D	1
K5		DFGE0138ZA	BOTTOM CASE SHEET	1
K9		DFWV80A0403	LCD FRONT CABINET/TS PANEL ASS'Y	1
K9-1	⚠	DFKF8171VA-0	LCD FRONT ASS'Y	1
K9-1-1		DFBH1180ZB	HINGE ASS'Y R	1
K9-1-2		DFBH1181ZB	HINGE ASS'Y L	1
K9-1-3		DFHR3E61YA	TS DUMPER PC	8
K9-1-4		DRYN4+J10KLT	SCREW	2
K9-2		DFWV84A0310	TOUCH SCREEN PANEL KIT	1
K9-2-1-1		DFHR9068ZA	PROTECTIVE FILM	1
K9-2-2		DFHP7246ZA	TS FIXED TAPE	1
K9-2-3		DFHR3695ZA	TS FPC SPACER	1
K9-3		DFHE0843ZA	LCD MAGNET	1
K9-4		DFHG1929ZA	MAGNET CUSHION	1
K10		DFBS8003ZA-0	LCD LATCH ASS'Y	1
K10-1		DFBS0073ZA-0	LCD LATCH	1
K10-2		DFHR6313ZA	LCD LATCH SLIDER	1
K11		DFDF5024ZA	LCD LATCH SHAFT	1
K12		DFUN0083ZA	LCD LATCH SPRING	1

K13		DFWV80C0513	LCD REAR CABINET ASS'Y	1
K13-1	⚠	DFKM8184ZA-0	LCD REAR ASS'Y	1
K13-1-1	⚠	DFKM0517ZA-0	LCD REAR CAB	1
K13-2		DFGB0131YA-0	PANASONIC BADGE	1
K16		DFHG1886ZA	LCD CABLE COVER CUSHION	1
K17		DFHG1887ZA	KBD CABLE COVER CUSHION	1
K18		DFHG1888ZA	DIMM COVER CUSHION	1
K19		DFHG1890ZA	ANT CABLE CUSHION	1
K21		DFHR3E98ZA	KB WP SHEET	1
K22		DFHR3E99ZA	ANT CABLE SHEET	1
K25		DFHR3G26ZA	BOTTOM TOP SPACER SHEET A	3
K26		DFHR3G27ZA	BOTTOM TOP SPACER SHEET B	1
K27		DFHR6270YA	DIMM STOPPER BASE	1
K28		DFHR6296ZA	DIMM COVER SPACER	1
K29	⚠	DFKE0857ZA-0	LCD CABLE COVER	1
K30	⚠	DFKE0858YC-0	KB CABLE COVER	1
K31	⚠	DFKE0859ZB-0	DIMM COVER	1
K32	⚠	DFKE0873ZB-0	HINGE COVER L	1
K33	⚠	DFKE0874ZB-0	HINGE COVER R	1
K34		DFMD2177ZA	ANTENNA CABLE PLATE	1
K35		DFMX0634ZA	CD EDGE SHEET	7
K36		DFMX0999ZA	RJ11 CABLE FIX SHEET	6
K38		DFMY0438ZA	W-LAN HEAT RUBBER	1
K40		DFHR3E83YA	CABLE TAPE	2
K41		DFMD7B13ZA	GPS BT ANGLE	1
K42		DFMX1260YA	GPS INS SHEET A	1
K44		DFGX0457ZB-0	LCD CONER COVER L	1
K45		DFGX0458ZB-0	LCD CONER COVER R	1
K46		DFGX0459ZB-0	LCD CONER SIDE COVER L	1
K47		DFGX0460ZB-0	LCD CONER SIDE COVER R	1
K49		DFHG1881ZA	LCD CABLE BUSH	1
K50		DFHG1884ZA	LCD DROP HOLDER	2
K52		DFHG1942ZA	REAR SCREW SHEET	1
K53		DFHR3159ZA	TOP CASE SHEET	1
K54		DFHR3F07XA	LCD CABLE WP SHEET	1
K56		DFHR7968ZA	CDD SHEET	1
K57	⚠	DFKE0871ZA-0	W-LAN ANT COVER L	1
K58	⚠	DFKE0872ZA-0	W-LAN ANT COVER R	1
K59		DFMC0685ZA	LCD CONDUCTIVE TAPE	2
K60		DFMC0863ZA	INV SHIELD CASE	1
K61		DFMC0873ZA	INV MIL SHIELD	1
K62		DFMC0874YA	INV SHEILD TAPE	1
K63		DFMC0876ZA	INV SHIELD CASE OUTSIDE	1
K65		DFMX1241ZB	INV CASE	1
K70		DFHP7261XA	KB SPACER TAPE	1
K71		DFHR3E65VA	KB SPACER SHEET	1
K74		DFHR6260ZB-0	KB COVER	1
K75		DFMD7B38ZB-0	KB BACK PLATE	1
K76		DFQT0045ZA	ENERGY STAR LABEL	1
K77		DFQT9A29ZA	WINDOWS VISTA	1
K78		DFQT0048ZA	CENTRINO CORE2DUO LABEL	1
K79		DFGB0165YA-0	TOUGH BADGE NEW	1
K80	⚠	DFGT1260ZA	RATING SHEET MK2 US	1
K81		DFGE0151ZA-0	WM COVER 30	1
K82		DFGP0201ZA-0	PALM TOP SHEET	1
K83		DFHE1037ZA	DC GASKET	1
K84		DFHG1901ZA-0	TOUCH PAD SW RUBBER	1
K85		DFHG370ZA	FOOT RUBBER	4
K86		DFHM0396ZA	BATT CN PIN	2

K90	DFHR3619ZA	LEDX6 SPACER SHEET	1
K91	DFHR3636ZA	CABLE HOLD SHEET	1
K92	DFHR3643ZA	TP BOTTOM TAPE	1
K93	DFHR3E67ZA	PAD WP SHEET	1
K94	DFHR3E93VA	1394 SHEET	1
K96	DFHR3F46ZA	ICH SHEET	1
K97	DFHR3F49ZA	CABLE TAPE 5X18	5
K99	DFHR3F87YA	PAD PROTCT SHEET	1
K100	DFHR3G02ZA	SERIAL COVER SPACER	1
K101	DFHR3G03ZA	SERIAL WP SHEET	1
K102	DFHR3G04ZA	USB COVER SPACER	1
K103	DFHR3G05ZA	USB WP SHEET	1
K104	DFHR3G09ZA	SERIAL INSIDE SPACER	1
K105	DFHR3G10ZA	USB INSIDE SPACER	1
K106	DFHR3G25ZA	TP FPC SHEET	1
K107	DFHR3G32ZA	BATTRY SLIDE SHEET	1
K108	DFHR3G41ZA	BATT CUSHION	1
K109	DFHR6355ZA	TP SW KNOB IN	1
K110	DFHR6246ZA	HDD GUIDE	1
K111	DFHR6247ZB	BATT GUIDE	1
K112	DFHR6253YA-0	SERIAL COVER	1
K113	DFHR6254YA-0	USB COVER	1
K114	DFHR6255YA-0	DC-IN COVER	1
K116	DFHR6259YC-0	PALM TOP COVER	1
K117	DFHR6295ZA	HDD CABLE COVER	1
K118	DFHR7953ZA	LAN SHEET	2
K119	DFHR8521ZA	BATT CN PIN CUSHION	2
K121	DFMD4066ZB-0	DC USB COVER PLATE	1
K122	DFMD4067ZB-0	SERIAL COVER PLATE	1
K123	DFMD4069ZA	ICH PLATE	1
K124	DFMD7B00ZA	BATT HDD CN ANGLE	1
K129	DFMX1006ZA	CABLE SHEET	1
K130	DFMX1256ZA	TP INS SHEET	1
K131	DFHG1403YA-0	COIN BATTERY CUSHION	1
K132	DFHG1467ZA	LEAD SW CUSHION	1
K133	DFHP7275ZA	CN TAPE L	1
K134	DFHP7276ZA	CN TAPE S	1
K135	DFHR3E94ZA	DMD CABLE SHEET	1
K137	DFHR3F59ZA	MAIN PCB SPACER	1
K138	DFHR3G11ZA	CN SHEET	1
K139	DFHR3G47ZA	USB SCREW COVER	1
K140	DFHR3G48ZA	USB SCREW COVER B	1
K141	DFHR6261ZA	MODEM LAN CASE	1
K142	DFHR6272ZA	MP GUIDE	1
K143 ⚠	DFKE0895YA	MAIN CHASSIS	1
K144	DFMC0875ZA	MAIN CHASSIS SHIELD	2
K146	DFMD7B22ZA	CN PLATE	1
K148	DFMX0635ZB	FFC CN STOPPER	3
K149	DFMX0702ZA	FFC CN STOPPER PAD	2
K153	DFMX1280ZA	EXP FPC SHEET	2
K157	DFHR3F53ZA	IO PWB SHEET	1
K161	DFHP7118ZA	TAPE	1
K163	DFHR3G93ZA	DC-IN WP SHEET	1
K1031	DFHR3H16ZA	REAR CABLE SHEET L	1
K1032	DFHR3H17ZA	REAR CABLE SHEET R	1
K1122	DFNW2701ZA	TOP WP WASHER	1
K1123	DFHR3741ZA	FFC CN STOPPER	1
K1151	DFMC0891ZA	LCD CABLE SHIELD TAPE	1
K1155	DFMY3257YA	2G DIMM HEAT PLATE	1

K1201	DFHR3K09ZA	LCD CABLE GUIDE	1
K1202	DFHR3H39YA	LCD CABLE CLAMP	1
K1203	D4CZY103A003	THERMISTOR	1
K1204	DFHE0915ZA	EMI SHEET 10X20	1
K1205	DFHG830ZA	CON SPACER	1
K1206	DFHR3F89ZA	MCH SHEET	1
K1207	DFHR3K18ZA	ANT CABLE WP SHEET	1
K1208	DFMY0486ZA	ICH MCH HEAT RUBBER	2
K1209	DFMY0487ZA	CPU HEAT RUBBER	1
K1210	DFHE1106ZA	KBD GASKET	1
K1211	DFHR6354ZA-0	MIC JACK HOLDER	1
K1212	DFHG2077ZA	COIN BATT CUSHION	1
K1213	DFQT0055YA	COA SERIAL LAMINATE	1
K1214	DFMX0383TA	INSULATION PARTS	10
N1	DRHM0002ZA	SCREW	5
N2	DRHM5054XA	SCREW	8
N3	DRQT2+G6FKL	SCREW	2
N6	DRQT26+E4FKL	SCREW	37
N7	DRSB26+10HKL	SCREW	13
N8	DRSB3+8FKL	SCREW	6
N9	DRYN4+J10FKL	SCREW	4
N10	DXSB4+15FNMB	SCREW	2
N11	DFHE5025XA	SCREW	10
N12	DXQT2+F3FNL	SCREW	4
N13	DRSB4+10FKL	SCREW	2
N14	DFHE5058ZB	SCREW	4
N15	DRHM5104ZA	SCREW	3
N16	DRQT26+E5FKL	SCREW	7
N17	DRQT26+E6FKL	SCREW	7
N18	DRSB26+8HKL	SCREW	1
N19	DRSN2+10FNL	SCREW	2
N20	DXQT2+D4FNL	SCREW	4
N21	DXQT2+E12FNL	SCREW	2
N22	DXQT2+G4FNL	SCREW	8
N29	DRQT26+E3FNL	SCREW	27
N30	DXHM0057ZA	SCREW	2

Replacement Parts List

Note: Important Safety Notice
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components use only manufacturer's specified parts.

CF-30FTSAZAM

REF. NO and AREA		PART NO.	DESCRIPTION	Q'TY
MAIN PCB				
C 1, 2, 3, 5, 6, 7, 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 44, 56, 74, 75, 78, 79, 84, 98, 100, 102, 104, 108, 115, 122, 123, 130, 132, 134, 136, 144, 146, 148, 150, 174, 177, 182, 184, 195, 199, 214, 217, 218, 219, 238, 239, 246, 269, 274, 275, 288, 350, 373, 374, 378, 394, 404, 417, 442, 528, 610, 611		F1J0J106A013	CAPACITOR, 6.3V, 10µF	88
C 4, 58, 86, 88, 114, 183, 191		EEFCX0D221R	CAPACITOR, 2V, 220µF	7
C 8, 9, 13, 17, 21, 25, 46, 47, 48, 49, 50, 54, 57, 62, 66, 69, 70, 71, 76, 85, 87, 95, 106, 107, 112, 116, 117, 118, 125, 126, 127, 128, 131, 133, 135, 137, 139, 140, 141, 142, 145, 147, 149, 151, 170, 171, 173, 175, 176, 179, 185, 186, 187, 188, 189, 190, 192, 193, 194, 196, 197, 207, 223, 226, 232, 234, 236, 237, 240, 241, 242, 243, 245, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 267, 268, 276, 277, 278, 279, 281, 282, 289, 291, 295, 298, 302, 306, 317, 318, 319, 320, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 338, 344, 345, 346, 347, 348, 349, 392, 403, 407, 409, 410, 411, 413, 414, 415, 416, 418, 419, 420, 433, 436, 437, 438, 439, 440, 441, 445, 448, 449, 451, 452, 461, 466, 474, 478, 479, 480, 481, 482, 485, 489, 490, 496, 531, 533, 580, 581,		F1G1C104A042	CAPACITOR, 16V, 0.1µF	175
C 45, 504, 537, 619, 638		F1G1H222A496	CAPACITOR, 50V, 2200pF	5
C 51, 52, 53, 61, 67, 89,		F1G0J474A001	CAPACITOR, 6.3V, 0.47µF	7

C 55, 72, 91, 152, 153, 154, 155, 200, 201, 202, 203, 211, 215, 229, 280, 299, 309, 313, 340, 397, 399, 400, 405, 406, 412, 422, 423, 435, 443, 468, 519, 525, 557, 569, 574, 575, 579		F1G1E103A062	CAPACITOR, 25V, 0.01µF	37
C 59, 60, 103, 105, 110, 113, 119, 120, 375, 383, 384		F1G0J224A001	CAPACITOR, 6.3V, 0.22µF	11
C 63, 65, 73, 77, 80, 81, 99, 101, 172, 178, 180, 181, 212, 216, 358, 637		F1G0J105A001	CAPACITOR, 6.3V, 1µF	16
C 68, 82, 83, 90, 92, 94, 111, 121, 198, 213		F1J0J226A051	CAPACITOR, 6.3V, 22µF	10
C 93, 205, 209, 230, 233, 235, 244, 270, 271, 272, 273, 284, 301, 305, 307, 343, 352, 387, 389, 390, 393, 408, 477, 527, 603, 617, 618, 642, 644		F1H1A1050015	CAPACITOR, 10V, 1µF	29
C 156, 157, 293, 294		F1G1H150A542	CAPACITOR, 50V, 15pF	4
C 162, 163, 164, 165, 166, 167, 168, 169, 224, 225, 353, 354, 355, 357, 359, 360, 363, 364, 371, 372, 376, 377, 395		F1G1A104A014	CAPACITOR, 10V, 0.1µF	23
C 204		F1G1H4R0A543	CAPACITOR, 50V, 4pF	1
C 206		F1G1H3R0A543	CAPACITOR, 50V, 3pF	1
C 208, 385, 632, 633, 634		F1H1A225A039	CAPACITOR, 10V, 2.2µF	5
C 227, 228		F1G1H2R0A543	CAPACITOR, 50V, 2pF	2
C 231, 573		F1G1C473A004	CAPACITOR, 16V, 0.047µF	2
C 266		F1L3D102A003	CAPACITOR, 2000V, 1000pF	1
C 285, 339, 341, 342, 453, 454, 455, 456, 457, 458, 459, 460, 462, 471, 473, 475, 493, 497, 498, 500, 521, 540, 542, 544, 547, 561, 564, 568, 584, 625, 626, 627, 628, 630, 635, 640		F1G1H102A496	CAPACITOR, 50V, 1000pF	36
C 297, 507		F1J1E334A081	CAPACITOR, 25V, 0.33µF	2
C 300, 311, 312		F1G1H271A495	CAPACITOR, 50V, 270pF	3
C 321, 322, 323, 324, 325, 587, 588		F1J1E105A080	CAPACITOR, 25V, 1µF	7
C 337, 361, 426, 427, 518, 543, 559, 620		F1G1H1010005	CAPACITOR, 50V, 100pF	8
C 351, 396, 476, 483, 484, 486, 505, 506, 524, 545, 566, 643		F1J0J475A009	CAPACITOR, 6.3V, 4.7µF	12
C 365, 367, 370		F1G0J334A001	CAPACITOR, 6.3V, 0.33µF	3
C 379, 381, 672		F1L0J107A016	CAPACITOR, 6.3V, 100µF	3
C 380, 421, 516, 534, 551, 556, 597, 698		F1K1E1060001	CAPACITOR, 25V, 10µF	8
C 382, 530, 532		EEFCD0D101ER	CAPACITOR, 2V, 100µF	3
C 386, 502, 523, 538, 548, 639		F1G1H221A495	CAPACITOR, 50V, 220pF	6
C 388, 391		F1H1A474A028	CAPACITOR, 10V, 0.47µF	2
C 450, 499, 520, 529, 536, 539, 560, 567, 595, 598, 600, 602, 604, 605		F1H1H104A748	CAPACITOR, 50V, 0.1µF	14
C 467, 469		F1G1A683A014	CAPACITOR, 10V, 0.068µF	2
C 487, 488		F1G1H100A544	CAPACITOR, 50V, 10pF	2

C 491, 562, 621		F1G1H470A542	CAPACITOR, 50V, 47pF	3
C 492, 629		F1G1H151A495	CAPACITOR, 50V, 150pF	2
C 494, 624		F1H1H1830001	CAPACITOR, 50V, 0.018µF	2
C 495, 631		F1G1H561A496	CAPACITOR, 50V, 560pF	2
C 501, 570, 623		F1G1H331A496	CAPACITOR, 50V, 330pF	3
C 508, 509, 510, 526, 571, 596, 606, 614, 615		F1L1E106A017	CAPACITOR, 25V, 10µF	9
C 512, 513, 514, 612		EEFSX0D471XE	SPCAP	4
C 515, 552		EEFCD0D151ER	CAPACITOR, 2V, 150µF	2
C 517, 546, 558, 616		F1H1C224A074	CAPACITOR, 16V, 0.22µF	4
C 522, 541, 565, 641		F1G1H220A542	CAPACITOR, 50V, 22pF	4
C 549		F1G1H472A496	CAPACITOR, 50V, 4700pF	1
C 553, 554		EEFCX0J101R	CAPACITOR, 6.3V, 100µF	2
C 563		F1G1H471A496	CAPACITOR, 50V, 470pF	1
C 572		EEFCD0G101ER	CAPACITOR, 4V, 100µF	1
C 577		EEFCX0G151R	CAPACITOR, 2V, 150µF	1
C 601		F1G1H152A496	CAPACITOR, 50V, 1500pF	1
C 607, 608, 609		DCUI1C106HDB	CAPACITOR, 16V, 10µF	3
C 645, 646, 647, 648		F1J2A103A018	CAPACITOR, 100V, 0.01µF	4
C 651, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 666, 668, 669, 670, 671, 675, 676, 677, 679, 680		F1H0J1050022	CAPACITOR, 6.3V, 1µF	23
C 652, 674, 682, 683, 684, 685, 686, 687		F1J0J4750019	CAPACITOR, 6.3V, 4.7µF	8
CF 1, 4		D4CC1103A038	THERMISTOR	2
CN 1		K1MN50AA0018	CONNECTOR	1
CN 2, 5, 6		K1MY40A00001	CONNECTOR	3
CN 3		K1KA14AA0266	CONNECTOR	1
CN 4, 29		K1MN12BA0134	CONNECTOR	2
CN 7, 8, 11, 30		K1MY40BA0220	CONNECTOR	4
CN 9		K1KY10BA0084	CONNECTOR	1
CN 10		K1MN80BA0246	CONNECTOR	1
CN 12		K1MY30AA0158	FPC CONNECTOR	1
CN 13		K1MY13BA0102	CONNECTOR	1
CN 14		K1MY16BA0097	CONNECTOR	1
CN 15		K1MY07BA0096	CONNECTOR	1
CN 16		K1KB30AA0049	CONNECTOR	1
CN 17		K1KA30BA0060	CONNECTOR	1
CN 18		K1MN08BA0134	CONNECTOR	1
CN 19		K1KA02AA0262	CONNECTOR	1
CN 20		K1KA08AA0266	CONNECTOR	1
CN 21		K1MYL0B00003	CONNECTOR	1
CN 22		K1MYL0B00004	CONNECTOR	1
CN 24		K1KY12A00004	CONNECTOR	1
CN 25		K1MN10BA0134	CONNECTOR	1
CN 26, 45		K1KA02BA0014	CONNECTOR	2
CN 28		K1FY104B0009	CONNECTOR	1
CN 31		K1KA12BA0014	CONNECTOR	1
CN 37		K1MY52BA0190	CONNECTOR	1
CN 46		K1KA02AA0299	CONNECTOR	1
CN 47		K1MY24BA0311	FPC CONNECTOR	1
D 6, 7, 19, 58, 59		MA2J72900L	DIODE	5
D 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22		B0ADCJ000041	DIODE	13
D 24, 46, 47, 48, 49		B0JCPD000023	DIODE	5
D 25, 29, 30, 53, 60		B0JCMD000010	DIODE	5
D 26, 28, 31		B0ADCJ000025	DIODE	3

D 33, 34, 35, 36, 37, 38, 62, 63		MAZ80620ML	DIODE	8
D 39, 55		MA3S132E0L	DIODE	2
D 40		B2ABAM000002	DIODE	1
D 42		MA2S111-TX	DIODE	1
D 43, 45, 50, 57, 64		B0JDBE000002	DIODE	5
D 44		B0JDRE000007	DIODE	1
D 51		MAZ81200ML	DIODE	1
D 52		MAZ81800ML	DIODE	1
D 54		B0KB00000044	DIODE	1
F 1, 4, 7	⚠	K5H502Z00003	FUSE, 5A, 32V	3
F 2, 5, 6, 8, 12	⚠	K5H202Z00005	FUSE, 2A, 32V	5
F 3	⚠	K5H402Z00003	FUSE, 4A, 32V	1
F 10	⚠	K5H802300002	FUSE, 8A, 72V	1
F 11	⚠	K5H123Y00001	FUSE, 12A, 65V	1
IC 1		C2GBD0000038	CPU	1
IC 2		C1CB00002802	CHIPSET	1
IC 3		C0JBBZ000319	PLL	1
IC 4		C1CB00002741	CHIPSET ICH8M	1
IC 5		C1CB00002732	LAN CONTROLLER	1
IC 7, 114		C0JBAZ002192	IC	2
IC 11, 12, 13		C0DBALH00003	IC	3
IC 15		C1CB00002540	IC, TEMPERATURE CENSOR IC	1
IC 20		C3EBFY000005	EEPROM	1
IC 21		C0DBEFE00003	IC	1
IC 23		C0DBZYY00265	POWER MANAGEMENT SWTICH	1
IC 24		C0DBZYY00016	IC	1
IC 25		C0ZBZ0000978	IC	1
IC 27		C3FBLY000048	FLASH MEMORY	1
IC 28		C2CBJA000003	IC, MICON	1
IC 29		C0CBCBC00181	IC	1
IC 30		C1CB00002733	AUDIO CODEC	1
IC 31, 86, 93		C0JBAS000215	IC, GATE LOGIC	3
IC 32, 58, 59, 61, 62, 68, 69, 87, 103, 104, 105, 108, 109		C0JBAA000362	IC, LOGIC	13
IC 33		C0ABZA000047	IC, AMP	1
IC 34, 35, 36		C0EBE0000459	IC	3
IC 37, 78		C0EBH0000457	IC	2
IC 38, 39		C0DBZYY00026	IC, USB POWER SW	2
IC 40		C0DBAYY00194	IC, DC/DC	1
IC 41		C0DBEFH00002	IC, REGULATOR	1
IC 42		C0EBE0000333	IC	1
IC 43, 44		C0EBH0000336	IC	2
IC 45		C0DBDJH00009	IC, LINER	1
IC 47, 113		C0JBAA000381	IC, LOGIC	2
IC 50		C1CB00002723	CARDBUS CONTOLLER	1
IC 51		C1DB00001159	IC, PERIPHERAL LSI	1
IC 52		C0CBCBC00137	IC, REGULATOR	1
IC 54, 63, 64, 66		C0JBAA000345	IC, LOGIC	4
IC 55, 110		C0JBAB000624	IC	2
IC 56		C0JBAE000321	IC, LOGIC	1
IC 65, 72, 96, 101, 107		C0JBAB000621	IC, LOGIC	5
IC 67		C1CB00002790	IC, SECURITY CHIP	1
IC 70		C0ABBA000093	IC, OP AMP	1
IC 71		C0JBAD000236	IC, LOGIC	1
IC 76		C3EBDY000005	IC, EEPROM	1
IC 77		C1CB00002279	IC	1

IC 79, 80, 88		C0JBAZ002836	IC, LOGIC	3
IC 81		C0DBGYY00423	LINEAR REGULATOR	1
IC 83, 84		C0JBAZ002837	IC, LOGIC	2
IC 85		C0JBAC000367	IC, LOGIC	1
IC 89		C0DBZYY00017	IC	1
IC 92		C1CB00002497	IC, USB HUB	1
IC 94, 95		C0JBAZ002372	IC, LOGIC	2
IC 99		AN12945A-VB	IC, AUDIO AMP	1
IC 100		C0JBAC000363	GATE LOGIC	1
IC 102		C0CBCAC00161	IC	1
IC 106		C0JBAZ002387	IC, LOGIC	1
IC 126		C0DBAYY00282	DC/DC CONTROLLER FOR GMCH	1
IC 127		C0JBAR000515	IC, Q-SWITCH	1
IC 128		C0DBGYY00422	LINEAR REGULATOR	1
JK 1	⚠	K2EEYB000001	JACK	1
L 1		G1CR82M00006	COIL	1
L 5, 12, 27, 32, 34, 48, 51, 54, 60, 64, 68, 69, 70, 71, 77		J0JJC0000015	INDUCTOR	15
L 8, 9		J0ZZB0000080	IDUCTOR, COMMON MODE FILTER	2
L 10, 11, 15, 16		J0JCC0000186	INDUCTOR	4
L 17		G1CR56ZA0140	INDUCTOR	1
L 18, 19, 21, 74		G1C4R7MA0240	CHOK COIL	4
L 20		G1C2R8MA0240	COIL	1
L 22		G1C100M00030	COIL	1
L 23, 53		J0JKC0000007	INDUCTOR	2
L 24		G1A160HA0032	COIL	1
L 25		G1BYYYY00009	INDUCTOR	1
L 26		J0MAB0000200	INDUCTOR	1
L 30, 47		G1C1R0Z00002	INDUCTOR	2
L 49, 50		G1C1R0MA0076	INDUCTOR	2
L 52		DDAZR100KTD	INDUCTOR	1
L 59		G1C91NM00001	INDUCTOR	1
PA 6	⚠	D4FB1R100015	PROTECTOR, 1.1A	1
Q 1, 36, 52, 53, 59, 66, 96, 123, 130, 131, 133, 135, 142, 144, 153		B1CFGD000023	TRANSISTOR	15
Q 7, 10, 18, 34, 39, 94,		XP0421300L	TRANSISTOR	7
Q 9, 12, 20, 47, 49, 127,		B1DHDC000028	TRANSISTOR	7
Q 13		2SB0766ARL	TRANSISTOR	1
Q 14, 25, 75, 76, 90, 99, 111, 112, 134, 145, 158		UNR9113J0L	TRANSISTOR	11
Q 16, 30, 31, 32, 33, 35, 37, 58, 69, 81, 82, 83, 85, 86, 87, 88, 89, 101, 102, 103, 104, 107, 108, 115, 119, 121, 126, 132, 138, 139, 141, 156, 157		UNR9213J0L	TRANSISTOR	33
Q 22, 23, 24, 48, 50, 64, 74, 77, 78, 91, 98, 109, 110, 117, 118, 120, 146,		UNR9214J0L	TRANSISTOR	18
Q 26, 28, 38, 51		B1DDED000004	TRANSISTOR, FET	4
Q 27, 80		B1MBFDG00001	FET	2
Q 40, 41, 42, 43, 44, 45, 137, 140		XP0411500L	TRANSISTOR	8
Q 54, 56, 60, 61, 67, 68, 71, 72, 84, 151, 152		B1CFRD000014	FET	11
Q 55, 57		B1CFRD000020	FET	2
Q 65, 73, 154		B1MBEDG00001	FET	3
Q 70, 93, 129		B1CFGD000003	TRANSISTOR	3

Q 79, 105, 106, 113, 114, 122, 124, 136		B1CHRD000001	TRANSISTOR	8
Q 92, 97		B1DHDD000031	TRANSISTOR, FET	2
Q 116		XP0421400L	TRANSISTOR	1
Q 125		B1MBEDA00008	TRANSISTOR	1
R 1, 2, 27, 39, 41, 43, 118, 190, 191, 262, 263, 378, 415		ERJ2GEJ102X	RESISTOR, 1/16W, 1KΩ	13
R 3		D1H85104A024	RESISTOR ARRAY	1
R 7, 31, 66, 68, 70, 480, 481, 518, 650, 657, 673		ERJ2RKF1001X	RESISTOR, 1/16W, 1KΩ	11
R 8, 32		ERJ2RKF2001X	RESISTOR, 1/16W, 2KΩ	2
R 9, 10, 30		ERJ2RKF1000X	RESISTOR, 1/16W, 100Ω	3
R 13, 15		ERJ2RKF27R4X	RESISTOR, 1/16W, 27.4Ω	2
R 14, 16, 35, 36		ERJ2RKF54R9X	RESISTOR, 1/16W, 54.9Ω	4
R 18		ERJ2RKF68R0X	RESISTOR, 1/16W, 68Ω	1
R 19, 23, 92, 97		ERJ2GEJ560X	RESISTOR, 1/16W, 56Ω	4
R 20		ERJ2RKF2000X	RESISTOR, 1/16W, 200Ω	1
R 21, 22, 33, 45, 56, 109, 146, 159, 161, 163, 164, 176, 182, 203, 204, 210, 241, 280, 282, 293, 296, 297, 330, 352, 366, 369, 430, 443, 444, 455, 461, 464, 474, 478, 484, 485, 486, 504, 595, 597, 647, 668, 680, 682, 684, 690		ERJ2GE0R00X	RESISTOR, 1/16W, 0Ω	46
R 24		ERJ2RKF56R0X	RESISTOR, 1/16W, 56Ω	1
R 25		ERJ2GEJ240X	RESISTOR, 1/16W, 24Ω	1
R 26, 48, 49, 90, 91, 103, 107, 124, 144, 181, 183, 209, 224, 251, 252, 256, 258, 269, 270, 271, 272, 273, 274, 275, 278, 279, 281, 283, 291, 292, 294, 299, 302, 303, 344, 350, 373, 379, 380, 381, 384, 389, 391, 393, 411, 419, 420, 421, 424, 428, 431, 440, 441, 442, 445, 446, 448, 453, 470, 501, 506, 513, 522, 523, 524, 543, 549, 575, 576, 577, 608, 609, 649, 653, 672		ERJ2GEJ103X	RESISTOR, 1/16W, 10KΩ	75
R 28, 605, 606, 607, 615		ERJ2GEJ562X	RESISTOR, 1/16W, 5.6KΩ	5
R 29		ERJ2RKF2210X	RESISTOR, 1/16W, 221Ω	1
R 34, 81, 137, 177		ERJ2RKF24R9X	RESISTOR, 1/16W, 24.9Ω	4
R 55, 171, 338, 339		ERJ2GEJ203X	RESISTOR, 1/16W, 20KΩ	4
R 64, 65		ERJ2RKF20R0X	RESISTOR, 1/16W, 20Ω	2
R 67		ERJ2RKF3920X	RESISTOR, 1/16W, 392Ω	1
R 69, 626, 627		ERJ2RHD302X	RESISTOR, 1/16W, 3KΩ	3
R 71, 72, 127, 242, 244, 276, 286, 321, 331, 332, 351, 414, 694, 695, 696, 697		ERJ2GEJ330X	RESISTOR, 1/16W, 33Ω	16
R 73, 104, 112, 113, 259, 385, 390, 392, 417, 418, 432		D1H81034A024	RESISTOR ARRAY	11
R 74, 550		ERJ2RKF1301X	RESISTOR, 1/16W, 1.3KΩ	2
R 75		ERJ2RKF2371X	RESISTOR, 1/16W, 2370Ω	1
R 76, 77, 78		ERJ2RKF1500X	RESISTOR, 1/16W, 150Ω	3
R 79, 80, 422, 423		ERJ2GEJ222X	RESISTOR, 1/16W, 2.2KΩ	4
R 84, 86, 89, 156, 157,		ERJ2GEJ1R0X	RESISTOR, 1/16W, 1Ω	6

R 85, 88, 245, 491, 492, 624, 632, 634		ERJ3GEY0R00V	RESISTOR, 1/16W, 0Ω	8
R 93, 94, 96, 98, 99, 101		D1HY5608A007	RESISTOR ARRAY	6
R 95, 100, 248		D1H85604A024	RESISTOR ARRAY	3
R 105, 106, 188, 189		D1H83304A024	RESISTOR ARRAY	4
R 111, 253, 334, 498, 499, 515, 516, 527, 528, 540, 541, 553, 554, 674, 675		ERJ2GEJ100X	RESISTOR, 1/16W, 10Ω	15
R 126, 148		D1H84724A024	RESISTOR ARRAY	2
R 128		D1H81504A024	RESISTOR ARRAY	1
R 129, 130, 185, 186, 187, 257, 264, 265, 266, 267, 268, 306, 307, 308, 437		D1HY1038A007	RESISTOR ARRAY	15
R 131		D1H81044A024	RESISTOR, 1/16W, 100KΩ	1
R 138		ERJ2RKF22R6X	RESISTOR, 1/16W, 22.6Ω	1
R 149, 395, 397, 477, 660		ERJ2GEJ471X	RESISTOR, 1/16W, 470Ω	5
R 151, 153		ERJ2RKF3241X	RESISTOR, 1/16W, 3240Ω	2
R 152, 154		ERJ2RKF4530X	RESISTOR, 1/16W, 453Ω	2
R 155, 178		ERJ2GEJ121X	RESISTOR, 1/16W, 120Ω	2
R 160		ERJ6GEYJ101V	RESISTOR, 1/10W, 100Ω	1
R 166, 169		ERJ2RKF3323X	RESISTOR, 1/16W, 332KΩ	2
R 172		ERJ2GEJ106X	RESISTOR, 1/16W, 10MΩ	1
R 173, 218, 454, 559, 560, 561, 562, 563		ERJ2GEJ105X	RESISTOR, 1/16W, 1MΩ	8
R 179		ERJ2GEJ331X	RESISTOR, 1/16W, 330Ω	1
R 184, 206, 214, 215, 231, 260, 426, 427, 435, 449, 579, 580, 625		ERJ2GEJ472X	RESISTOR, 1/16W, 4.7KΩ	13
R 192, 198, 217, 246, 304, 309, 310, 315, 342, 347, 353, 357, 359, 360, 382, 404, 405, 406, 407, 408, 433, 434, 451, 456, 457, 458, 459, 497, 514, 558, 602, 610, 611, 639, 671, 685, 686, 688, 699		ERJ2GEJ104X	RESISTOR, 1/16W, 100KΩ	39
R 193, 200, 219, 354, 361, 362, 363, 383, 410, 425, 539, 557, 600, 601, 613		ERJ2GEJ474X	RESISTOR, 1/16W, 470KΩ	15
R 216, 240, 298, 300, 301, 374, 375, 402, 429, 482, 564, 565, 566, 567, 568, 569, 631, 636, 676, 677		ERJ2GEJ101X	RESISTOR, 1/16W, 100Ω	20
R 220		ERJ2RKF4871X	RESISTOR, 1/16W, 4.87KΩ	1
R 221, 222, 254, 290, 295, 327, 328, 345, 376, 377, 552		ERJ2RHD103X	RESISTOR, 1/16W, 10KΩ	11
R 223, 503, 551		ERJ2RHD303X	RESISTOR, 1/16W, 30KΩ	3
R 227, 228, 229, 230, 232, 233, 234, 235		ERJ2RKF49R9X	RESISTOR, 1/16W, 49.9Ω	8
R 236		D1H87504A024	RESISTOR ARRAY	1
R 249, 473		ERJ2RKF5101X	RESISTOR, 1/16W, 5.1KΩ	2
R 284		ERJ2GEJ150X	RESISTOR, 1/16W, 15Ω	1
R 287		ERJ2RKF5602X	RESISTOR, 1/16W, 56KΩ	1
R 288, 289, 305		ERJ2RKF3901X	RESISTOR, 1/16W, 3.9KΩ	3
R 311		ERJ2RHD3922X	RESISTOR, 1/16W, 39.2KΩ	1
R 312, 387		D1H84734A024	RESISTOR ARRAY	2
R 313, 547, 670		ERJ2RHD203X	RESISTOR, 1/16W, 20KΩ	3
R 317		ERJ2GEJ273X	RESISTOR, 1/16W, 27KΩ	1
R 320, 346		ERJ6GEY0R00V	RESISTOR, 1/10W, 0Ω	2
R 322, 335		ERJ2RKF2671X	RESISTOR, 1/16W, 2.67KΩ	2
R 324, 325, 475, 533, 534		ERJ2RKF5601X	RESISTOR, 1/16W, 5.6KΩ	5

R 336, 337		ERJ2GEJ333X	RESISTOR, 1/16W, 33KΩ	2
R 340, 341, 367, 371, 472, 545, 582, 583		ERJ2RHD104X	RESISTOR, 1/16W, 100KΩ	8
R 348		ERJ2RKF1602X	RESISTOR, 1/16W, 16KΩ	1
R 349		ERJ2RKF9091X	CHIP RESISTOR	1
R 365		ERJ2RKD684X	RESISTOR, 1/16W, 680KΩ	1
R 368, 370, 655		ERJ2RKD154X	RESISTOR, 1/16W, 150KΩ	3
R 372		D1ZZ00000046	RESISTOR, 1W, 5mΩ	1
R 386, 450, 538, 588, 592, 593, 598, 599		ERJ2GEJ473X	RESISTOR, 1/16W, 47KΩ	8
R 388		D1H81014A024	RESISTOR ARRAY	1
R 394, 398, 438		ERJ2GEJ181X	RESISTOR, 1/16W, 180Ω	3
R 396, 399, 510		ERJ2GEJ221X	RESISTOR, 1/16W, 220Ω	3
R 400, 401		D1H82214A024	RESISTOR, 1/16W, 220Ω	2
R 416		D1H81004A024	RESISTOR ARRAY	1
R 452		ERJ2RKF1202X	RESISTOR, 1/16W, 12KΩ	1
R 466		ERJ2RKF5103X	RESISTOR, 1/16W, 510KΩ	1
R 467, 587		ERJ2RKF4702X	RESISTOR, 1/16W, 47KΩ	2
R 468, 654		ERJ2RKF6801X	RESISTOR, 1/16W, 6.80KΩ	2
R 469		ERJ2GEJ393X	RESISTOR, 1/16W, 39KΩ	1
R 471		ERJ2RKF1800X	RESISTOR, 1/16W, 180Ω	1
R 476, 488, 489, 490		ERJ3GEYJ1R0V	RESISTOR, 1/16W, 1Ω	4
R 479		ERJ2RHD222X	RESISTOR, 1/16W, 2.2KΩ	1
R 487, 645		ERJ3GEYJ101V	RESISTOR, 1/16W, 100Ω	2
R 493, 630		D1ZZ00000093	RESISTOR, 1W, 1mΩ	2
R 494, 495, 508, 512, 531, 536, 556		D1BDR033A099	RESISTOR, 1/3W, 0.033Ω	7
R 496, 509, 511, 529, 530, 532, 537, 555		D1BDR022A099	RESISTOR, 1/3W, 0.022Ω	8
R 500, 521, 542		ERJ2GEJ153X	RESISTOR, 1/16W, 15KΩ	3
R 502, 517, 544, 633, 640		ERJ3GEYJ100V	RESISTOR, 1/16W, 10Ω	5
R 505, 507		ERJ2RHD243X	RESISTOR, 1/16W, 24KΩ	2
R 519		ERJ2RHD752X	RESISTOR, 1/16W, 7.5KΩ	1
R 520, 526, 586		ERJ2RHD153X	RESISTOR, 1/16W, 15KΩ	3
R 525		ERJ2RHD472X	RESISTOR, 1/16W, 4.7KΩ	1
R 535		ERJ2RKF1302X	RESISTOR, 1/16W, 13KΩ	1
R 546		ERJ2RHD622X	RESISTOR, 1/16W, 6.2KΩ	1
R 548, 570, 637, 641, 642, 643		ERJ2GEJ223X	RESISTOR, 1/16W, 22KΩ	6
R 571, 572		ERJ6GEYJ122V	RESISTOR, 1/10W, 1.2KΩ	2
R 573, 574		ERJ6GEYJ222V	RESISTOR, 1/10W, 2.2KΩ	2
R 578, 581, 594, 596		ERJ2GEJ564X	RESISTOR, 1/16W, 560KΩ	4
R 584, 585		ERJ2RKF3302X	RESISTOR, 1/16W, 33KΩ	2
R 589, 590		ERJ2GEJ3R3X	RESISTOR, 1/16W, 3.3Ω	2
R 603		ERJ3GEYJ562V	RESISTOR, 1/16W, 5.6KΩ	1
R 604		D1BDR4700001	RESISTOR, 1/8W, 0.47Ω	1
R 612		ERJ2RKD114X	RESISTOR, 1/16W, 110KΩ	1
R 614		ERJ2RHD3652X	RESISTOR, 1/16W, 36.5KΩ	1
R 616		ERJ2GEJ154X	RESISTOR, 1/16W, 150KΩ	1
R 617, 618, 619		D1BDR1000002	RESISTOR, 1/8W, 0.1Ω	3
R 620		RL1220SR15F	RESISTOR, 1/8W, 0.15Ω	1
R 622		ERA3EKB1623V	RESISTOR, 1/16W, 162KΩ	1
R 623		ERA3EEB1692V	RESISTOR, 1/16W, 16.9KΩ	1
R 628, 629		D1BDR068A100	RESISTOR, 0.068Ω	2
R 635		ERJ3GEYJ2R2V	RESISTOR, 1/16W, 2.2Ω	1
R 638		ERJ2GEJ303X	RESISTOR, 1/16W, 30KΩ	1
R 644		D1H8R0040009	JUMPER	1
R 648		ERJ2RKF4022X	RESISTOR, 1/16W, 40.2KΩ	1

R 651, 656		ERJ2RKF6981X	RESISTOR, 1/16W, 6.98KΩ	2
R 658		ERJ2RKF1691X	RESISTOR, 1/16W, 1.69KΩ	1
R 659		ERJ2RKF1433X	RESISTOR, 1/16W, 143KΩ	1
R 661, 662		ERJ2GEJ392X	RESISTOR, 1/16W, 3,9KΩ	2
R 663, 664		ERJ2GEJ4R7X	RESISTOR, 1/16W, 4.7Ω	2
T 1, 2		G5BYC0000015	TRANCE	2
X 1		H0J143500058	OSCILLATOR, 14.318MHz	1
X 2		H0J327200115	OSCILLATOR, 32.768KHz	1
X 3		H0J250500076	XTAL	1
X 5		H2D800400015	OSCILLATOR, 8MHz	1
X 6		H0J245500083	XTAL	1
X 7		H0J240500033	XTAL	1
ZA 1, 2, 7		K1YGZZ000060	SPACER	3
ZA 3, 4		K1YGZZ000065	SPACER	2
IO PCB				
C 700, 702, 718, 738, 739, 747		F1G1C104A042	CAPACITOR, 16V, 0.1μF	6
C 701		F1H1H104A748	CAPACITOR, 50V, 0.1μF	1
C 703, 704, 705, 706, 707, 708, 709, 710, 741,		F1G1H1010005	CAPACITOR, 50V, 100pF	10
C 712, 715		F1G1H330A542	CAPACITOR, 50V, 33pF	2
C 736, 737		F1G1H102A496	CAPACITOR, 50V, 1000pF	2
C 740		F1H1A1050015	CAPACITOR, 10V, 1μF	1
CN 700		K1MY50BA0220	CONNECTOR	1
CN 701		K1MN40B00048	CONNECTOR	1
CN 702		K1FA209BA004	CONNECTOR	1
CN 703		K1FB115BA014	CONNECTOR	1
CN 705		K1FY180BA001	CONNECTOR	1
F 701	⚠	K5H802300002	FUSE, 8A, 72V	1
FL 703, 704, 705		J0HAAC000059	FILTER	3
JK 700, 701		K2HC103B0197	JACK	2
L 700, 701, 702, 703, 704, 705, 706, 707		DDB5Z021G-Y	INDUCTOR	8
L 711, 712		J0JCC0000186	INDUCTOR	2
L 713, 714, 721, 722, 723		J0JCC0000078	INDUCTOR	5
L 715, 716, 717, 718, 719		DDB5Z021C-Y	INDUCTOR	5
L 720		J0JHC0000032	INDUCTOR	1
PA 700	⚠	D4FB1R100015	PROTECTOR, 1.1A	1
R 700, 701, 702		ERJ2RKF1500X	RESISTOR, 1/16W, 150Ω	3
R 703		F1G1A104A014	CAPACITOR, 10V, 0.1μF	1
R 704		EZJP0V080KA	VARISTOR	1
R 706, 719		ERJ2GEJ472X	RESISTOR, 1/16W, 4.7KΩ	2
R 711, 712, 713, 714, 722, 723		ERJ2GE0R00X	RESISTOR, 1/16W, 0Ω	6
R 716		ERJ2GEJ101X	RESISTOR, 1/16W, 100Ω	1
R 717, 718		ERJ2GEJ221X	RESISTOR, 1/16W, 220Ω	2
R 720, 721		ERJ3GEY0R00V	RESISTOR, 1/16W, 0Ω	2
MP PCB				
CN 400, 401		K1MN40B00048	CONNECTOR	2
CN 402		K1KA62B00003	CONNECTOR	1
F 401	⚠	K5H103300003	FUSE, 10A, 72V	1
PAD PCB				
C 800, 804		F1H1A1050015	CAPACITOR, 10V, 1μF	2
C 801, 802		F1G1H681A496	CAPACITOR, 50V, 680pF	2
C 803		F1G1C104A042	CAPACITOR, 16V, 0.1μF	1
CN 800		K1MN14BA0059	CONNECTOR	1
CN 801		K1MY04BA0104	CONNECTOR	1
CN 802		K1MN10BA0059	CONNECTOR	1

D 800		DED1SS355T17	DIODE	1
IC 800		C1DB00001417	IC, FLAT PAD CONTROLLER	1
Q 800, 801		B1GKCFJN0004	TRANSISTOR	2
R 800		ERJ2GEJ224X	RESISTOR, 1/16W, 220KΩ	1
R 801, 803		ERJ2GEJ822X	RESISTOR, 1/16W, 8.2KΩ	2
R 802		ERJ2GEJ273X	RESISTOR, 1/16W, 27KΩ	1
R 804		ERJ2GEJ105X	RESISTOR, 1/16W, 1MΩ	1
R 805, 806		ERJ2GEJ222X	RESISTOR, 1/16W, 2.2KΩ	2
R 808		D1H81034A024	RESISTOR ARRAY	1
SW 800, 801		EVQPLDA15	SWITCH	2
X 800		H2D400400012	OSCILLATOR, 4MHz	1
SD PCB				
C 300		F1G1A104A014	CAPACITOR, 10V, 0.1µF	1
CN 300		K1MN12BA0134	CONNECTOR	1
CN 301		K1NA09E00076	CONNECTOR	1
D 300		B3ACB0000207	LED	1
R 300		ERJ2GEJ101X	RESISTOR, 1/16W, 100Ω	1
USB PCB				
C 100		EEFCX0J121R	CAPACITOR	1
C 101, 102		EEFCX0J121R	CAPACITOR	2
CN 100		K1KA14BA0014	CONNECTOR	1
CN 101, 102, 103		K1FY104BA024	CONNECTOR, USB	3
D 100		B0KB00000044	DIODE	1
D 101, 102		B0KB00000044	DIODE	2
L 100		J0MAB0000116	INDUCTOR	1
L 101, 102		J0MAB0000116	INDUCTOR	2
L 103, 104, 105, 106, 107, 108		DDB5Z031J-L	INDUCTOR	6
LED PCB				
LED PC				
CN 901		K1MN10AA0058	CONNECTOR	1
D 901, 902, 905, 906, 907		B3ABB0000210	DIODE	5
D 903		B3ADB0000065	DIODE	1
D 904		B3AGB0000040	DIODE	1
EXT. ANTENNA PCB				
CN 1, 2		K1QZA1AE0001	CONNECTOR	2
CN 3		K1QZB1AA0023	COAXIAL CONNECTOR	1
HDD BATTERY FPC				
CN 4		K1KY42B00001	CONNECTOR	1
CN 5		K1KY10B00009	CONNECTOR	1
CN 7		K1KY10BA0084	CONNECTOR	1
TOUCH PANEL CONTROLLER PCB				
C 200, 201, 202, 203		F1G1E472A062	CAPACITOR, 25V, 4700pF	4
C 204, 205, 206, 207		F1G1H681A496	CAPACITOR, 50V, 680pF	4
C 208, 211, 212		F1G1C104A042	CAPACITOR, 16V, 0.1µF	3
C 209		F1G1E223A062	CAPACITOR, 25V, 0.022µF	1
C 210		F1G1H102A496	CAPACITOR, 50V, 1000pF	1
C 213		F1J0J475A009	CAPACITOR, 6.3V, 4.7µF	1
C 214		F1G0J224A001	CAPACITOR, 6.3V, 0.22µF	1
C 216		F1J0J106A013	CAPACITOR, 6.3V, 10µF	1
CN 200		K1MN04BA0071	CONNECTER	1
CN 201		K1KA06BA0014	CONNECTOR	1
IC 200		C0EBE0000460	IC	1
IC 202		C1CB00002515	IC, TOUCHPANEL CONTROLLER	1
Q 200, 201		XP0431400L	TRANSISTOR	2
Q 202		UNR9113J0L	TRANSISTOR	1
Q 203		UNR9213J0L	TRANSISTOR	1

R 200, 206		ERJ2GEJ473X	RESISTOR, 1/16W, 47KΩ	2
R 203, 205, 207, 209, 210, 211, 212, 217, 220, 221, 222, 223		ERJ2GEJ102X	RESISTOR, 1/16W, 1KΩ	12
R 208		ERJ2GEJ273X	RESISTOR, 1/16W, 27KΩ	1
R 213, 214, 215, 216		ERJ2GEJ822X	RESISTOR, 1/16W, 8.2KΩ	4
R 218		ERJ2GEJ512X	RESISTOR, 1/16W, 5.1KΩ	1
R 226		DEARA8AJ473M	RESISTOR ARRAY	1
R 227, 228		ERJ2GEJ270X	RESISTOR, 1/16W, 27Ω	2
R 229		ERJ2GEJ152X	RESISTOR, 1/16W, 1.5KΩ	1
X 200		H2D600400005	OSCILLATOR, 6MHz	1
BT PCB				
C 1		F1J0J106A016	CAPACITOR, 6.3V, 10µF	1
C 2, 4, 7, 11		F1G1C104A042	CAPACITOR, 16V, 0.1µF	4
C 3, 5		F1G1H102A496	CAPACITOR, 50V, 1000pF	2
C 6, 9		F1G1E103A062	CAPACITOR, 25V, 0.01µF	2
C 8		F1G1H270A542	CAPACITOR, 50V, 27pF	1
C 10		F1G1HR50A543	CAPACITOR, 50V, 0.5pF	1
CN 1		K1MN10BA0070	CONNECTOR	1
IC 1		C0JBAZ002422	IC, FET SWITCH	1
IC 2		N5HZZ0000056	BLUETOOTH MODULE	1
IC 3		C0EBE0000460	IC	1
IC 5		C0JBAC000382	IC, LOGIC	1
JK 1		K1QZA1AE0001	CONNECTOR	1
L 1, 2		J0JJC0000015	INDUCTOR	2
L 4		G1C5N6ZA0029	INCUCTOR	1
L 5		J0MAB0000200	INDUCTOR	1
Q 1		B1GBCFNN0042	TRANSISTOR	1
Q 2		B1DHDC000028	TRANSISTOR	1
R 1, 2, 3		ERJ2GEJ103X	RESISTOR, 1/16W, 10KΩ	3